Gulstonian Lectures
ON
MALIGNANT ENDOCARDITIS.

Delivered at the Royal College of Physicians.

BY WILLIAM OSLER, M.D.,
PROFESSOR OF CLINICAL MEDICINE AT THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—Few diseases present greater difficulties in the way of *diagnosis* than malignant endocarditis, difficulties which in many cases are practically insurmountable. It is no disparagement to the many skilled physicians who have put their cases upon record to say that in fully one-half of them the diagnosis was made post mortem. In spite, too, of able memoirs in the journals, the disease has not been much known, and it is only of late years that the text-books have contained chapters upon it. The protean character of the malady, the latency of the cardiac symptoms, and the close simulation of other disorders combine to render the detection peculiarly difficult.

In the group of cardiac cases in which the disease attacks a patient the subject of chronic valvulitis the matter is usually easy enough. The existence of fever of an irregular type, and the occurrence of embolism, generally suffice to make the case clear. It must be remembered that simple warty endocarditis not unfrequently attacks sclerotic valves, and may be accompanied by slight fever. Of course, in chronic heart disease, irregular pyrexia may arise from other causes—local suppuration, cellulitis, &c.,—which must be excluded.

In rheumatic fever, a disease in which the heart is more systematically examined than any other, if with the occurrence of a murmur the symptoms become aggravated and assume a typhoid or pyæmic type, the recognition of the complication should be easy. The onset of severe head symptoms in rheumatism—delirium, with high fever and coma—requires to be carefully distinguished. Fortunately, the simple endocarditis so common in this disease rarely, as I shall have occasion to show, passes into the grave form.

In pneumonia, a prolongation of the course, with the supervention of typhoid or septic symptoms, should lead to a very careful examination of the heart.

The greatest difficulty is met with in those acute cases resembling the malignant forms of the fevers; here the affection may simulate typhoid, typhus, cerebro-spinal meningitis, or even hæmorrhagic small-pox. Even with the detection of a heart murmur, the judgment may have to be suspended, and many cases die with the general symptoms of profound blood-poisoning, before the development of any special features upon which a diagnosis could be based.

From typhoid fever, with which the cases are most often confounded, the mode of onset, the pyrexia, and the abdominal symptoms offer the chief points for discrimination. The onset of severe endocarditis is more abrupt, not so often preceded by a period of failing health and progressive weakness. In a large number of cases, cardiac pain or oppression and shortness of breath are mentioned as early symptoms. The fever rarely presents, in the early days of the disease, the regularity of typhoid, and from the outset may be very high. A sudden fall to the normal, or even below, may occur; indeed, irregular pyrexia is one of the most important diagnostic signs. The combination of diarrhœa, abdominal distension, and a rose-coloured eruption, points strongly to typhoid. The rash, when present, is usually petechial, a rare circumstance in typhoid fever. The development under observation of pronounced murmurs, particularly of aortic and regurgitant, is most suggestive of malignant endocarditis, and the occurrence of emboli would be a positive confirmation. Rigors rarely occur in typhoid, while they are common in endocarditis. It is well, however, to bear in mind that, in many of the most severe cases, death may occur, as in any of the infective disorders, without the development of the special symptoms necessary for a diagnosis.

Many of the cases present the clinical features of pyæmia, a condition which may actually exist, dependent upon the ulcerative lesions on the valves; and here the diagnosis lies between an ordinary septic infection from a wound, or auto-infection from a primary endocardial inflammation.

It is interesting to note the similarity of those cases of acute endocarditis in which death occurs in a few days, without the development of any other than the valvular lesion, with those instances of rapidly fatal acute periostitis and necrosis, and also with those cases of malignant septic infection from a slight external lesion.

It seems strange that difficulties should arise in the diagnosis between malaria and malignant endocarditis, but the records of cases plainly show that for weeks or months a condition of intermittent pyrexia may occur, simulating every type of ague. The paroxysms in regularity, in order of sequence, and in the accompanying general conditions, may fulfil every condition of a quotidian or tertian intermittent; and the development of cardiac symptoms, with breathing of the pyrexial type, may alone determine the nature of the case.

Etiology and Pathology.—With a view of obtaining data upon which to base statements regarding the etiological relations of malignant endocarditis, I have gone over the records of 209 cases. As before stated, thirty-seven of these occurred in connexion with pyæmia, traumatic or puerperal. Doubtless this number could have been very greatly increased had I examined files of special gynæcological and surgical journals, but my investigation did not lie so much in these directions. In forty-five cases there was no record of any previous disease which could be taken into account as possibly connected with the endocarditis. In 127 cases there was a history of past or existing disease with which the cardiac trouble could, with a greater or less degree of probability, be associated.

One or two general considerations may first be mentioned. The period of middle life gives the greatest number of cases. Young children are rarely the victims; there were only three or four instances under ten years of age, and not many more over fifty. The cases occurring in connexion with rheumatism presented an average younger age than the others; there were thirty-six instances under thirty years of age, out of fifty-one cases in which this point was mentioned. Of 160 cases (exclusive of traumatic and puerperal), ninety-nine were in males, and sixty-one in females. Persons debilitated by exposure or other causes, or addicted to drink, seem particularly liable to be attacked, and in such subjects, during the course of an acute disorder, this complication is much more likely to arise. As has been already referred to, the existence of sclerotic valvulitis is a very important factor in the etiology of severe endocarditis, a very considerable proportion of the cases occurring in individuals whose valves are thickened and crumpled from chronic inflammation.

The existence of a primary protopathic endocarditis must, I think, be allowed. In forty-five cases no history could be obtained of rheumatism or other affections with which endocarditis is known to be associated. Many of these cases were of the most malignant type; in ten, death took place within a week. A specific statement of the absence of rheumatism was generally given. The onset was usually like that of a specific fever—headache, vomiting, rigors, pyrexia, and often early delirium and unconsciousness. The very acute cases resemble severe typhoid or typhus, but, when more prolonged, a pyæmic condition may develop. In a number of these cases the disease has attacked persons with chronic valve disease, some while under treatment, others in whom the compensation was complete and the old lesions only detected at the necropsy. In five instances, the ulcerative process attacked aortic valves, two of which were fused, and had undergone the fibroid changes always associated with this malformation. In 127 of the cases, the endocarditis was associated with other diseases, some of the most important of which we shall now proceed to consider.

Rheumatism.—Since Bouillaud called special attention to the frequency of cardiac complications in this disease, its importance in the etiology of endocarditis has been universally recognised. And as regards the simple form of endocarditis, the general statements are quite true, but, fortunately, the graver and fatal form is much less common, much less, I think, than is usually supposed. In fifty-three cases there was a history of rheumatism, past or present. I included every case in which there had been the record of an attack, recent or remote. In only twenty-four did the symptoms of severe endocarditis arise during the progress of the acute or subacute disease. In twenty-nine cases there was simply a history of rheumatism, often years before, and

no mention of the occurrence of joint troubles at the time of the development of the endocarditis. Dr. Ogle called attention to the fact that ulcerative endocarditis occurred very often in persons in whom no rheumatic history could be traced. Of twenty-one cases which he reported, some of which were probably atheromatous, in only three was rheumatism mentioned. In only three also of the Montreal cases was there any positive history of rheumatism, either before or during the attacks. The following case, under the care of Dr. Ross, is a good example of the mode of onset.

B. M——, aged twenty-two, a healthy girl until three weeks before her admission to hospital, on Jan. 4th. At that time she was attacked with rheumatism of the wrists and ankles, not very severe, and she did not receive any treatment. A week from the beginning of the attack she began to have chills, two or three a day, and she became feverish. During the next week she got worse, had occasional chills, not delirious; was brought to hospital on the 4th, in a very low state. On the 5th there were delirium and incoherence. Pulse 130; temperature 100°. Double murmur up and down sternum, joint troubles not evident. On the 6th, 7th, and 8th, remained in the same state, no chills; temperature ranged from 100° to 102°. On the 9th more restless. On the 11th a grey membrane was noticed on the fauces. On the 12th the membrane in throat had extended, and covered the soft palate. Temperature 103°. On the 13th she died suddenly. The necropsy revealed a large deep ulcer at the aortic ring, nearly destroying one segment, and penetrating deeply between the auricle and the left ventricle. There were small infarcts in the brain, extensive recent diphtheria of fauces.

In a larger number than in any other group, sclerotic valves were found, with the existence of which the past rheumatism could, in many instances, be connected. A primary rheumatic endocarditis was recognised by Latham, also by Graves and Stokes, and it is quite possible that some of the cases which I have grouped as protopathic represented instances of the kind in which, if life had been prolonged, joint troubles might have supervened.

Cases of acute rheumatism sometimes occur in which there may be multiple miliary abscesses,[1] and a pyæmic condition similar to the case just narrated, but without the presence of endocarditis. Micrococci have been found in these abscesses, and the cases resembles those rare instances of idiopathic pyæmia. It is worthy of observation that a skin eruption was most frequently noted in connexion with the rheumatic cases, generally an erythema. In a case of Dr. Kirkes,[2] it was observed on both face and hands. The occasional presence of a scarlet rash in rheumatism,[3] and in puerperal fever [4] has long been recognised.

In chorea, with which simple endocarditis is so often associated, the malignant form very rarely supervenes.

Pneumonia, as Bouillaud pointed out, is not unfrequently complicated with endocarditis, but the important part which it plays in the etiology of the malignant disease has not been generally recognised. In the cases I have reviewed, it stands at the head of the list of diseases in which secondary endocarditis of a severe nature develops, fifty-four instances having been noted, rather more than 25 per cent. of the total number of cases. For this I was quite prepared by our Montreal experience, for, in eleven of the twenty-three cases, the attack was associated with pneumonia. Of the occurrence of acute endocarditis in this disease, the statements are somewhat diverse. Bouillaud thought that, in a third or fourth of the cases in which there was left-sided pneumonia, there was inflammation of the serous membranes of the heart. Grisolle, in his classical work on pneumonia, states, on the contrary, that it is a rare complication, and this would certainly appear to be the conclusion of the Committee for Collective Investigation, for, in the report upon 1000 cases, endocarditis is only once mentioned. My experience at the Montreal General Hospital is very different. I have notes of 103 necropsies on cases of lobar pneumonia, and the occurrence of acute endocarditis is noted in sixteen cases, over 15 per cent. Of these cases eleven were of the malignant form. An analysis of these shows that in six the left lung was involved; in five, the right; in four, the upper lobe was affected; in seven, the lower. In nine of the cases there was pericarditis; in five of the eleven cases there was suppurative cortical meningitis. In the fifty-four cases which I have reviewed, in thirty-six the lung affected was mentioned, and in twenty-six the affection was on the right side, and only ten on the left, figures which are opposed to the statement of Bouillaud, that it is in left-sided pneumonia that endocardial complication most frequently supervenes. In fifteen cases acute meningitis is mentioned, and in one instance the meninges of the cord were also affected. The aortic valves seem more often involved than the mitral. In seventeen instances there were old sclerotic changes in the valves.

The clinical features of several cases in which the endocarditis came on during pneumonia have already been given. In many of them, as in the woman M. D——, aged twenty-nine, referred to in the second lecture, the patients are brought to the hospital unconscious, and die within a few days, with symptoms of a grave cerebral disorder. In others there is a history of ordinary pneumonia, and the case may pursue the usual course, and defervescence take place, when in a day or so fever of an irregular type recurs, and typhoid or pyæmic symptoms appear. The majority of the cases are of this kind. Again, some instances occur in connexion with injuries, and the patients succumbs to a lobar pneumonia and endocarditis unconnected with any sepsis. Two of the Montreal cases were of this kind. In three or four cases there were rheumatic symptoms preceding or accompanying the pneumonia, as in a case of Dr. Mussers.

Elderly persons were more often attacked than in the other groups. There were ten individuals over fifty years of age. In the Montreal cases three of the patients had had pneumonia before; in one it was the third attack, and in every one of them there was a history of either drinking habits or previous bad health. In some cases, the pneumonia had partially or entirely resolved at the time of death, in others there was red, or, more frequently, grey hepatisation.

The relation of the meningitis to the pneumonia and the endocarditis is particularly interesting. The occasional occurrence of this complication in pneumonia has been referred to by many writers, particularly Grisolle, Huguenin,[5] and Greenfield.[6] In the 103 cases I met with it in eight instances, in five of which there was also endocarditis. The frequency of the association of these two conditions in pneumonia is illustrated by the figures already given; of twenty-five instances of meningitis in malignant endocarditis, fifteen cases occurred in pneumonia. In all the specimens I have examined, there were micrococci in the exudation, and in three cases many of the capillaries and small arteries were filled with them; and it seems natural, where the endocardium is involved, to attribute the process to embolism from the valves. But the occurrence of an identical cortical meningitis without any valvulitis shows that it may be due to other causes than the endocarditis. As Huguenin suggests, it may be dependent upon the presence in the blood of infective material derived from the infiltrated lung tissue.

In connexion with these secondary or consecutive inflammations in pneumonia, it is interesting to call to mind the not unfrequent occurrence of pericarditis, and of croupous inflammation of the gastro-intestinal canal. Dr. Bristowe some years ago noted the frequent complication of croupous colitis; and, in 103 necropsies, I have met with this complication in five instances; and in one there was extensive croupous or membranous gastritis.

Diphtheria is rarely complicated with endocarditis, and I have been able to find only two or three instances in which severe symptoms were present; yet in some works endocarditis is stated to be not an uncommon sequence. Labadie-Lagrave[7] regards it as such; but it is probable that what he described as vegetations are only Albini's little nodules, the remnants of fœtal structures. In 108 necropsies in diphtheria Telamon[8] did not meet with a single case of endocarditis; and my experience has been the same in thirty post-mortem examinations, many of which were in adults.

In dysentery a few cases have occurred. Litten[9] has recorded an instance in which there was extensive ulceration of the aortic valves; and one of the Montreal cases occurred in connexion with acute colitis.

In the eruptive fevers grave endocarditis occasionally develops—in typhoid, in scarlet fever, and in variola; but in the cases I have analysed these diseases appear of very trivial etiological significance.

[1] Fleischhauer, Virchow's Archiv, Band lxxii.
[2] British Medical Journal, vol. ii., 1863.
[3] Peter, Union Médicale, 1870.
[4] Hicks, Obstetrical Society's Transactions, vol. xii.
[5] Ziemssen's Encyclopædia, Band xii.
[6] St. Thomas's Hospital Reports, 1878.
[7] Bull. Soc. d'Anatomie, 1877.
[8] Progrès Médicale, 1879.
[9] Charité Annalen, iii.

In ague, as Lancereaux[10] first pointed out, simple or severe endocarditis may develop. In some of these cases, as in the remarkable one reported by Dr. Bristowe, to which I referred in the second lecture, the paroxysms of true intermittent, and those of the ulcerative endocarditis, seem to run the one into the other.[11] In most of the cases there has been only a history of severe ague, and the endocarditis has followed repeated attacks. Dr. Greenhow[12] has reported a very instructive case of the kind.

Dr. Goodhart[13] makes the interesting suggestion that ulcerative endocarditis is more frequently met with at periods in which scarlet fever, erysipelas, pyæmia, and diphtheria prevail. The Guy's Hospital records certainly seem to show that the cases appear in groups pretty close together, and at a time when the diseases mentioned are epidemic. In Montreal we have had occasionally a "run" of cases together, but I have not noticed the connexion referred to by Dr. Goodhart.

I approach a discussion of the pathology of malignant endocarditis with some trepidation, partly due to a sense of incompetency, and partly from a feeling that the time is scarcely ripe for a satisfactory presentation of the subject; and yet there are signs which make one hopeful; and it would not be rash to predict that the knowledge twenty-five years hence will be as much in advance of to-day as our information on the subject is of the time when Dr. Kirkes made his memorable investigations. A serious difficulty exists in the circumstance that we have not to deal with a single form of disease—an entity; but rather with a special manifestation in many affections—affections, too, the pathology of which is, in most instances, by no means clear. No one can doubt that the more severe cases of endocarditis present in a typical mode all the features of those diseases which we call infective, and believe to be caused by the absorption of some poison, the development of which in the blood and tissues profoundly disturbs, and finally annihilates, function.

Briefly stated, the theory of acute endocarditis which at present prevails, and the only one to which I shall refer, is that it is in all its forms an essentially mycotic process; the local and constitutional effects being produced by the growth on the valves, and the transference to distant parts of microbes, which vary in character with the disease in which it develops. This very attractive theory can be adjusted to meet every requirement of the case, though as yet lacking certain of those substantial data so necessary for full acceptance, but which having been furnished of late years in other diseases, we may reasonably hope will in time also be forthcoming for this.

Let us see, first, what has been done, and how far the facts at our disposal seem favourable to this view. The constant presence of micro-organisms seems undoubted; only, in the simple acute form, we need more careful observations with our improved methods. Some good observers have not been able to find them;[14] others declare them to be invariable constituents of the verrucose outgrowths.[15] The careful application of such a satisfactory mode of staining as recommended by Gramm should readily determine this question. A study of the endocarditis of puerperal and traumatic pyæmia will be most likely to yield important information, as here the conditions are simpler, and the relation of the micro-organisms can more readily be determined. The cardiac complication in these cases is only part of a general process, excited by a local lesion, and is entirely secondary and subsidiary. Micrococci arranged in chaplets are constant constituents of the vegetations, and, in the case of puerperal fever, they have a close resemblance to those found in the peritoneal exudation. The well-known observations of Koch, Ogston, and others have shown the relation of microbes to pyæmia; and the recent culture experiments of Rosenbach[16] go far towards demonstration for man what Koch had previously done in the case of the pyæmia of the mouse. In these cases, a study of the modes of growth of the micrococci of the endocarditis, and of the effects of inoculations, and a comparison of these with similar observations in the organisms of the original lesion, or of the metastatic foci, should yield results of great value in the interpretation of the phenomena of secondary endocarditis.

In rheumatic fever we are still too far from any accurate knowledge of its intimate pathology to dwell on the possible connexion of any organism peculiar to it, and the endocarditis so common in its course. Klebs[17] distinguishes the microbes occurring in rheumatic cases from those of the septic forms.

In pneumonia, micrococci undoubtedly abound in the exudation of the air cells, and their mode of growth in gelatine is peculiar, but the numerous experiments on artificial production are not yet conclusive. The evidence is accumulating which places pneumonia among the infective disorders, and it certainly is a seductive view to take of its pathology to regard the local pulmonary lesion as excited by the growth of micrococci in the air cells, and the various consecutive inflammations—the endocarditis and pericarditis, the pleurisy, the meningitis, the membranous gastritis or colitis—as due to the penetration of the organisms to deeper parts, and their local development under conditions dependent on the state of the tissues. The processes are all of the character described as croupous, and have as a common feature the presence of micrococci in a coagulable exudation. We have still, however, to settle the identity of the organisms of the air cells with those of the consecutive inflammations, but we may reasonably hope ere long to have some positive data from investigations in this disease which, more than any other, offers favourable opportunities for the solution of these problems.

In diphtheria, as we have seen, mycotic endocarditis rarely occurs, and, in the few instances observed in association with scarlatina, variola, erysipelas, and other affections, we lack positive information with regard to the characters of the micro-organisms.

In the way of experimental investigation of the properties of the micrococci, not much has been done of a satisfactory nature. Heiberg[18] placed bits of vegetations from a puerperal case beneath the skin and in the peritoneal cavity of a rabbit without effect. Eberth,[19] Birch-Hirschfeld[20] have produced panophthalmos in the rabbit by inoculating the cornea; and I was able to produce well-marked mycotic keratitis in the same animals with fresh material from the valves of two cases. H. Young of Manchester inoculated rabbits with pus from an abscess in ulcerative endocarditis, and was able to detect micrococci in the blood.

No conclusive culture experiments have yet been made. Graucher[21] has cultivated a microbe from the blood, taken during life with all necessary precautions, but apparently not in series, and no inoculations of animals were made. Cornil[22] has made cultures on gelatine, but apparently no special results have been reached.

How do the micrococci reach the valves? In cases of puerperal and traumatic septicæmia the external lesion is undoubtedly the source of infection, which is conveyed through the venous system, and in these cases it will be remembered that the right heart is most often affected. In other instances, where the skin is unbroken, we must suppose them to gain access by the lungs or intestines, most probably the former; and in these instances the left heart is the chief seat of the mycosis. Whether they reach the valves with the general blood current, as Klebs supposes, or through the coronary arteries, as Köster holds, cannot be considered settled; but, from the position of the early vegetations in a non-vascular region of the valves, and from the fact already referred to that colonies of micrococci can be seen directly upon the endocardium, it seems probable that Klebs's view is the correct one. He suggests, in explanation of the fact that the lines of closure of the valves are the usual seat of the process, that the micrococci, circulating with the blood, are here closely pressed into the endothelium by the firm apposition of the flaps. Whether or not in any given case endocarditis will arise, depends greatly on the condition of the valve tissue. In a case of pneumonia or other disease, such as pyæmia, in which we may suppose microbes circulating in the blood, the endothelium of normal valves may be able to resist their invasion, or even if they do lodge and penetrate, the conditions may not be favourable for their growth; but where an individual is

[10] Gazette Médicale, 1862; and Archives Générales, 1873.
[11] Dr. Bristowe informs me that, in the case referred to, he is inclined to regard the intermittent pyrexia as dependent from the outset upon the endocarditis, and not associated with malaria.
[12] Path. Soc. Transactions, vol. xxx. [13] Ibid., vol. xxxiii.
[14] Orth, Lehrbuch der Speciellen Pathologischen Anatomie, Lief. i., 1883.
[15] Klebs, Archiv f. Exper. Pathologie, iv.; Köster, Virchow's Archiv, lxxii.
[16] Micro-organisms bei den Wund-Infections, Krankheiten des Menschen, Wiesbaden, 1884.
[17] Archiv f. Experiment. Pathologie, ix.
[18] Virchow's Archiv, lvi. [19] Ibid., lvii. [20] Archiv der Heilkunde, xvii.
[21] Journal de Médecine de Paris, Dec. 20th, 1884.
[22] L'Abeille Médicale, Dec. 22nd, 1884.

debilitated and the tissue tone lowered, or if, as so often seems the case, the valves are diseased, then the micrococci find a suitable nidus, and excite, by their growth, an endocarditis which may be of a malignant type. As Dr. Goodhart suggests,[23] patients with chronic sclerotic valves are walking mushroom beds, in common times without spawn, but in periods of epidemics germs enter by various channels, which fertilise in these cases into ulcerative endocarditis; in others, to suppurative processes. Certainly, on paper, so to speak, the view which I have thus imperfectly and hurriedly discussed seems plausible enough, and meets the requirements of the case fairly well; but let us, in conclusion, follow an important rule too much neglected, and get a definite outline for our ignorance. In the first place, we do not yet know, with sufficient accuracy, the frequency of the occurrence of microbes in simple endocarditis. Are they constantly present or only in forms associated with special diseases? Secondly, we want full information of the various forms of micro-organisms occurring in secondary endocarditis, and of their relation to the microbes assumed to be the cause of the primary disease. And, thirdly, we are only at the threshold of inquiries relating to the culture of these organisms, to the macroscopic characters of their growth, and to the possible experimental production of endocarditis.

I cannot conclude without thanking my late colleagues at the Montreal General Hospital, by whose kindness I have had command, not only of the pathological, but also of much of the clinical material upon which these lectures were based. And, lastly, Sir, you will allow me to express my sincere regret that my efforts have not been more worthy of such an intensely interesting subject, and of the distinguished audience which I have had the honour of addressing.

Croonian Lectures

ON THE

HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians,

BY HERMANN WEBER, M.D.,

PHYSICIAN TO THE GERMAN HOSPITAL.

LECTURE I.

(*Concluded from page 466.*)

THERE is a species of constitution which does not fight well when attacked by any serious disease, and especially by phthisis. I cannot satisfactorily define this complication of anatomical and physiological peculiarities of cells and tissues and nerve functions, which our old physicians, especially in Germany, used to call *erethic constitution*. A slight injury or a slight cause of irritation produces constitutional effects, especially pyrexia, quite out of proportion, and the effects do not readily disappear. The equilibrium of health is not easily regained. The pulse is generally rapid, the appetite varying, the mucous membrane irritable, and sleep imperfect. This constitution is always associated with a certain degree of asthenia, sometimes patent, sometimes masked. For the sake of shortness, we might, I think, use this term when referring to the constitutional peculiarities just mentioned. The general treatment, and especially the climates most useful to other consumptive patients, are not easily adapted to this constitution. The prognosis of the developed disease is bad. Prophylactic treatment is imperative.

A most important point in the prognosis is the degree of intelligence and judiciousness of the patient, and in many instances of the patient's friends. The delicate or sick persons who have an insight into their own condition, in the wider sense of the word, and into those influences which act beneficially on them and those which are injurious, have a better chance of recovery than those who are less intelligent, who do not see the bearing on health of all the numerous items of daily life, most trivial in appearance, but all-powerful in their accumulated action. A circumstance of almost equal importance is the *possession of means* to carry out the most suitable treatment. No other disease demands so many and such long-continued sacrifices as phthisis, and those who are able to make them have, as a rule, a greater chance of recovery than those who are not. The poor deserve our greatest sympathy. While in the majority of other diseases the ordinary hospitals place the poor almost under the same favourable conditions as the rich at their homes, this is by no means the case with phthisis; on the contrary, the majority of general hospitals are very ill adapted, and the well-arranged special hospitals for the treatment of consumption have accommodation only for one sufferer in a thousand. I wish, gentlemen, I could not only induce you to see this in the same light that I do, but also to use your influence with the public gradually to fill up this great gap in our philanthropic institutions.

Preventive treatment.—In discussing the treatment of phthisis it is impossible to restrict ourselves to that of the developed disease, and to pass over the prophylactic or preventive treatment. The latter is, indeed, in many cases, all that gives us any chance, for in some constitutions the disease once established runs a rapid course to the end, or at best cripples the patient for life; and many of those endowed with better constitutions do not possess the means to submit to treatment which often must be extended over many years. The question of preventive treatment has been ably discussed by many authors—Drs. Mac Cormac, Pollock, Jaccoud, Ruhle, amongst others; and quite lately in a comprehensive way by Ewald in his address to the International Medical Congress at Copenhagen. Some of the questions relating to the prevention of phthisis ought to belong to public hygiene and State medicine—for instance, whether to destroy cows affected with tuberculosis, whether to permit the flesh and milk of such animals to be consumed; the hygienic arrangements in school-board schools, the playgrounds connected with them and the superintendence of the games, the number of school hours; the condition of factories and the work at factories, the buildings for the accommodation of working people and their families, the barracks, &c.

The questions of infectiousness and communicability of phthisis are not yet sufficiently settled to lay down prophylactic rules with regard to them, but they ought to be carefully and calmly investigated in all their bearings. I have only to deal with them in the preventive sense, not as etiological questions, but both cannot be quite separated. Dr. Andrew has fully discussed them in his Lumleian Lectures, and though we may not in all points agree with him, his reasoning, based on historical data and personal experience, deserves thoughtful examination. There is in Dr. Andrew's discussion no sign of a feeling which is so apt to intrude itself unconsciously on the inquirer, and sometimes to influence his judgment. I have, for instance, heard from intelligent men the view that it would be cruel to shun the consumptive, who is already much afflicted, to check the intimate intercourse between him and his nearest and dearest friends, or to render his condition intolerable and promote the fatal termination of his disease by not allowing him to marry. If we could think that by allowing intimate intercourse and marriage the disease could not be spread, it would certainly be cruel to give pain, but if experience and investigation should teach the opposite, then judgment ought to have precedence before feeling.

We are, I suppose, all convinced that infection can take place by inoculation, and this may possibly occur more frequently than is thought. Several instances are recorded; I remember just now two occurrences. The first is related in a communication by Dr. Lindmann in the *Deutsch. Med. Woch.*, 1883; two children who were circumcised by a man, who was in the last stage of consumption, and who, after circumcision, sucked the prepuce according to the Jewish rites, became both infected with ulcers on the prepuce and swelling of the inguinal glands, and the ulcers had the appearance of tuberculous ulcers. One of the children recovered after some months. In the other the glands became ulcerated, and caseated masses were removed from them. The child then apparently recovered, but in the third year it perished from Pott's disease and rapid phthisis. The second occurrence is recorded in the *Berlin. Med. Woch.* of 1878. The midwifery practice in the small village of Neuenburg was pretty closely divided between two midwives. One

[23] Loc. cit.

of the two became consumptive in 1874, and died in July, 1876. Ten children without hereditary predisposition, attended by this midwife between April, 1875, and May, 1876, died within the first seventeen months of their lives; while none of those died who were attended by the other midwife, and while tubercular meningitis is a rare disease at Neuenburg. The consumptive midwife was in the habit of sucking the mucus from the mouth of the new-born children and blowing air into the mouth when there was the slightest sign of asphyxia. In this occurrence it is perhaps doubtful whether it ought to be explained by inoculation, or by contagion in the more ordinary sense of the word. It is not impossible that more cases of inoculation will be observed when once general attention is directed to this point. I remember two cases which I am now inclined to explain in this way, though at the time of their occurrence I had not done so. The first was in a wet-nurse who nursed a consumptive child; she first had an ulcer at the side of the tongue, which was regarded as due to a rough tooth, which however did not heal after the tooth had been filed, and was not cured by borax and other local applications. Several months later she lost her voice, and ultimately died from phthisis. I am inclined to think that a slight sore on the tongue had been inoculated and formed the starting-point of phthisis in this woman, who was free from hereditary disposition. The second recollection relates to a mother who nursed a consumptive daughter, fifteen years old, with whom she shared the same bed and whom she constantly kissed. She, likewise, had first a sore on the tongue and afterwards on one of the tonsils before she manifested any signs of pulmonary consumption. But in this case the mother belonged to a somewhat tainted family, and her husband had died from phthisis; although she had been apparently quite well before she nursed her daughter, yet she may have had latent phthisis before the sores on the tongue and tonsil made their appearance.

On the question of contagiousness of phthisis, the views of medical men will probably remain divided for a long time to come. The facts brought forward by Drs. Theodore Williams, Pollock, and Andrew are very encouraging, and we may be sure that phthisis is not in the same way communicable as scarlet fever and small-pox are. But we must bear in mind that there is more intimate intercourse between husband and wife, and near relatives sleeping in the same room, and even the same bed with consumptive persons, than between nurses or doctors and patients, and that, besides, the hygienic arrangements at the Brompton Hospital and at some of the best general hospitals are much better than those of many small private houses. Since I read a paper on the Communicability of Phthisis between Husband and Wife at the Clinical Society more than ten years ago, I have not met in my own practice with any such striking cases as those which I then related, so that I am happy to think that they are rarer than it seemed to me at that time; but I remain convinced, from clinical facts, of the communicability of phthisis under certain circumstances, and the experimental researches of Tappeiner, Veraguth, and Schäffer ought not to be forgotten. In preventive medicine, therefore, the infectious character of phthisis ought to lead to certain precautions, of which I can mention only the most salient. Persons affected with consumption, for instance, especially the subacute forms, ought not to be allowed to perform offices by which breath, saliva, or sputa are brought into close contact with healthy, and still less with very young or weak and diseased, people or persons with an acquired or inherited predisposition. Not without reason physicians have forbidden kissing between consumptive patients and other persons; but this prohibition recalls to my mind a beautiful German poem by Scheffel, in which a famous tom-cat, a prince of cats, watches from his throne on the roof the doings of mankind, and soliloquises on that trait of human beings, to kiss one another, especially in the time of youth. From this poetical cat's cogitation I infer that kissing is a part of man's nature, and nature, I fear, cannot be stopped.

The secretions and excretions of consumptive persons, and the wearing apparel, bedding, &c., soiled by them, especially the expectoration, should be disinfected and carefully removed. Woollen articles of furniture ought also to be avoided or frequently changed for disinfection. No dust ought to be made in sick rooms or wards, as the microbes are likely to be moved about in this way. The cleaning of rooms and furniture by a dry process of sweeping and dusting ought therefore to be forbidden. Ventilation of the sick room ought to be most abundant, not only for the sake of the sick persons themselves, but for those in contact with them, and the latter ought to be much in the open air and attend to their health by all other means, in order to keep up there power of resistance.

It is our duty to prevent as far as lies in our power the marriage of consumptive persons, and even of persons who though not actually consumptive themselves belong to families with a strong consumptive taint. We must at all events endeavour to convince those with whom we come into professional contact of the importance of this duty, but notwithstanding all this, our advice will often be disregarded, and those who know the meaning of the wonderful word "love" and its equivalent in other languages cannot be astonished at it.

Failing in the prevention of marriages, we must direct our attention to the management of those affected with *hereditary tendency*. The infants of consumptive mothers ought never to be suckled by the latter, but ought to have perfectly healthy wet-nurses, or if this be impossible, they ought to live on milk from sound cows, or donkeys, or goats during the first year—boiled if there is the slightest cause for suspicion as to purity; and milk ought to form during the first six years the principal article of food, and ought only gradually to be in part substituted by other animal food with an admixture of farinaceous and green vegetables. I quite agree with Dr. Duckworth's remarks in the *Practitioner* on the insufficient use of milk as an article of diet in England, with regard to children as well as adults; and these remarks would be still more applicable to other countries. Those who have been in the country districts of Italy know how difficult it is to obtain milk. The child ought never to sleep in the same room, and still less, in the same bed with the consumptive parent or any other consumptive person. The child's room ought to be large, with plenty of light, in a southern or south-western aspect, with abundant ventilation by day and by night. Whatever we may think of Dr. Henry Mac Cormac's explanation of the origin of consumption by the "breath rebreathed," it must be acknowledged that pure air is the best means to prevent consumption; that he has pleaded in favour of it in a more eloquent way than any other author, and that his teachings ought to be accepted much more universally than has hitherto been the case. The temperature of the room ought not to be too high, 65° F. being quite sufficient for the very young, and 62° for somewhat older children, and less in the sleeping-room. The skin ought always to be covered with flannel, the clothing warm and loose; there should be daily sponging with gentle friction. The temperature of the water used is to be gradually lowered, 60° F. being sufficient after the second year. The child ought to be taken out into the open air for several hours every day, and later on to spend the greater part of the day in the open air. If it can be arranged, the house ought to be in the country, on a dry slope with sunny aspect. Active exercises ought to be encouraged at an early period, and to be gradually increased as to duration and activity of movement—games, gymnastics, rowing, riding on horseback, climbing, and all kinds of exercises by which the muscles and the organs of circulation and respiration are brought into play, and as a consequence the nutrition of the body improved. Mental education need not be neglected, but ought to go on, and can go hand in hand, with sound physical education; but confined rooms and sedentary habits ought to be rigorously avoided. No trade or profession ought to be permitted which induces such habits, or which exposes the delicate person to dust or tainted air, but farming, seafaring, and other open air occupations ought to be selected. The period of cessation of growth, and the first year succeeding it, require special attention. But how can this be applied to the children of the poor? I am afraid that I must say that this is one of the problems not yet solved, and perhaps not to be solved in the very near future. Let us at all events lay down these principles for the guidance of those who have influence on the nursing and education of the children of the poor; and some improvement we may hope will gradually be achieved, and is often achieved already now in individual cases and in well-arranged orphan asylums. With regard to schools, too, we can demand the best hygienic arrangements, and playgrounds attached to them, and gymnasia, and drilling masters.

Every one of us has, I suppose, met with instances which prove how much can be done by judicious physical education, even under apparently hopeless circumstances; yet you will

pardon me, I hope, gentlemen, if I relate to you the outlines of a very instructive family history. About thirty years ago I saw a lady affected with rapid consumption, living in a small street near Bloomsbury-square; the husband, a teacher of languages, had just died under my care at the German Hospital of chronic consumption, at the age of thirty-eight. He was a member of a consumptive family. The wife's family too was by no means free from consumption; indeed, out of three brothers and two sisters, two brothers and one sister had already died of the disease. She herself had had seven children, ranging from twelve years to one year of age. The second of these had died from tubercular meningitis. The others—namely, four boys, of twelve, nine, seven, and two years, and two girls of five and one—were fairly healthy, excepting the youngest boy, who was pale and rachitic. After the death of the mother some relatives, intelligent and wealthy at the same time, took entire charge of the children. They took them to their home in a mountainous district of Silesia, one of the healthiest parts of Germany, and brought them up on the plan which I have just sketched. The oldest son remained well as long as he took much outdoor exercise, but at the age of twenty-three he became absorbed in the study of the origin and affinities of languages, worked day and night, gave up exercise, took most of his meals in his study surrounded by books, and perished from rapid consumption in less than eighteen months. The second son took to farming, and was in excellent health up to the age of twenty-nine, when he found his occupation not remunerative enough, and began to work in a commercial house, being confined to an ill-ventilated office during the greater part of the day, and working, besides this, at home with the hope of gaining a better position. After scarcely two years of this intensified city work he had several attacks of hæmoptysis, and died in less than two years from the outset. The third son has become a cavalry soldier, leading a judicious life, and is a strong and healthy-looking man. The fourth child, then a girl of five years old, is now a country parson's wife in a healthy part of Silesia, has no children, and is perfectly healthy. The youngest son, rachitic as a child, has become a powerful man, and is a farmer near Manitoba in Canada; and the youngest daughter staying with him is likewise strong and healthy.

The history of this family is very instructive. It shows that by favourable circumstances, even a strongly marked family tendency may be neutralised; and this becomes still more manifest when I add that by far the majority—viz., nine out of eleven—of the cousins of these children have died from consumption before the age of twenty-eight. It further teaches the serious lesson, that if the stringent rules of health are neglected even after the constitution has become satisfactorily developed, the disease may suddenly show itself and run a rapid course. My experience, indeed, forces me to say that a strong hereditary tendency, especially from the mother's family, requires the strictest attention, not only during the first thirty years, but from infancy to old age, for old age does not shelter from phthisis. I have notes of several cases where with a healthy mode of living the health had been perfect up to fifty, and phthisis was developed afterwards under unhygienic influences. Thus, for instance, C. M——, with a consumptive history on the mother's side, was perfectly well as a sailor up to the age of fifty-two, when on account of a chronic and fatal disease of his wife he retired from the service, and while nursing her was much confined to the house for many months. Dyspepsia and phthisis developed themselves, and he died at the age of fifty-six. A. D——, likewise with consumptive tendency from the mother, enjoyed good health as a traveller for a commercial house, till at the age of fifty-four he exchanged this occupation for office work as a partner in the house and lived altogether in town. His health began to fail after a year, and he died before he was fifty-nine. I could mention other similar instances, and have also had the opportunity of seeing repeatedly "consumption" as the certified cause of death in life insurance cases after sixty, where insurance had been effected late in life, in spite of hereditary disposition, because it had been thought that at so advanced an age the office might be secure with regard to the development of consumption. But I am convinced that where the hereditary predisposition is much marked there is only that "security" of which the great poet says:

> "And you all know security
> Is mortal's chiefest enemy."

Altogether there seems to be no good foundation for the general impression that consumption is rare in the later part of life. Dr. Somerbrodt found in twenty-five post-mortem examinations of military pensioners eleven times tubercular lesions as the cause of death, the average age at the time of death being eighty-two. Dr. Würtzburg found that in the Prussian monarchy, on comparing the number of deaths at certain ages from consumption with the number of persons of the same age living, phthisis is decidedly a more frequent cause of death among the old than among the young. Thus he gives amongst 10,000 persons living: ninety-three deaths from phthisis in the period of age from sixty to seventy; nearly sixty-eight from fifty to sixty; only forty-one from thirty to forty; only thirty from twenty to twenty-five. At Copenhagen likewise, according to Lehmann, the death-rate from phthisis to the number of persons living at the same age increases with advancing years up to the age of seventy-five. There is, however, in this respect a difference between different countries; and in England and France, for instance, the death-rate is greatest between fifteen and thirty-five. It is not easy to say what is the cause of this difference; it may be partly due to a difference in the names given to the diseases in the different countries; thus in England the number of deaths from "lung disease" in old age is proportionately greater than in Prussia, while that of "phthisis" in old age is smaller. It is possible that some cases which in England are certified as "chronic bronchitis" or other "lung disease" would receive in Prussia the name of phthisis. But part of the difference may be accounted for by the fact that during the much colder winters in Prussia old people are more confined to narrow, ill ventilated, stove-heated rooms than is the case in England, where the cold is never great, and where open fireplaces do not allow the air to be vitiated to the same degree.

The preventive treatment of the *acquired predisposition* to phthisis is similar in principle to that of the hereditary predisposition, though generally it is not required for the whole of life, but only for a shorter or longer period, excepting in those cases where, by deterioration of the health of the parents during the period preceding fecundation, or of the mother during pregnancy, or by unfavourable influences during the first periods of extra-uterine life, permanent weakness or insufficiency has been created. The preventive treatment must be varied according to the constitution and the circumstances of the individual, the causes which have produced the predisposition, and the system or part of the body principally weakened. You will not wish me to enter into details, but allow me briefly to discuss a few points only. A fruitful source of phthisis is the *tendency to catarrh of the respiratory mucous membrane*. It is not to be treated by confinement to hot rooms and by avoiding the open air; but, on the contrary, by hardening and by accustoming the delicate person, clothed in flannel, but not loaded with clothes, to constant exposure to the air in almost all weathers—walking, driving, riding in open carriages; by abundant though judicious ventilation of the rooms; by regular sponging of the skin—at first tepid, perhaps with vinegar, afterwards cold—and by friction; by strengthening the whole system by nutritious food and by frequent prolonged changes to the seaside or the mountains, according to the nature of the constitution. These frequently recurring catarrhal affections may form predisposing causes in different ways, especially by producing sore places in the mucous membrane and thus allowing the bacillus to settle; or by weakening the epithelial cells of the mucous membrane and their ciliary action, or by causing imperfect breathing from unconsciously avoiding deep inspirations in order to avoid coughing, or by weakening the nutrition and energy of the whole system. The latter element is powerful, and by no means rare. Many persons remain excessively weak for a long time after a so-called "severe cold," and lose entirely their appetite and their inclination to exercise and to work.

The tendency to imperfect breathing which often accompanies protracted colds is best remedied by judicious exercise, even if it causes at first fatigue. Persons presenting the imperfect development of the thorax, often described as the "paralytic form," and the general appearance known by the term "phthisical habitus," whether hereditary or acquired, demand similar management, as those subject to constant catarrhs. The imperfect development of the thorax especially requires pulmonary gymnastics, deep inspirations, alternating with complete expirations, breathing with raised arms in order to allow free entrance of air into the apex, judicious climbing of hills and mountains. It is not only our duty to remove the acquired disposition, but also to prevent the acquirement of it by physical education,

general hygiene, and by the management of acute diseases, especially those which affect the respiratory organs, as measles, whooping-cough, diphtheria, bronchitis, pneumonia. The broad rules laid down by Dr. Wilson Fox, in his article on Pneumonia in Dr. Russell Reynolds's "System of Medicine," relieve me of the duty of further entering on this subject. But with regard to measles, diphtheria, and whooping-cough, I cannot help pointing out the injurious influence of hot rooms and fear of ventilation, to which I have been repeatedly obliged to ascribe a share in the cause of phthisis. Change of air to mild seaside or fairly bracing inland places is often important during the convalescence from these diseases, but the fatigue of long journeys is to be avoided.

Preventive medicine has a very large field in the subject of phthisis. I need only remind you of the change in the phthisis mortality of soldiers and prisoners by improved ventilation in barracks and prisons, and we must always have before our minds the important discovery of Bowditch and Buchanan, that drying of the soil by drainage diminishes the mortality from phthisis. The practical application requires no words.

SOME BRIEF NOTES ON THE LATE OUTBREAK OF CHOLERA IN PARIS.[1]

BY HY. TOMKINS, M.D., B.Sc., &c.,
RESIDENT MEDICAL OFFICER, MONSALL FEVER HOSPITAL, MANCHESTER.

THE outbreak of cholera in Paris during last November afforded an opportunity for those interested in epidemic diseases of seeing and studying this scourge of Eastern countries; and at the end of the month I visited Paris for that purpose, though at that time the outbreak had begun to subside almost as rapidly as it commenced, so that in all I saw only some forty to fifty cases. The history of its appearance and progress in Europe last year may be summed up in a very few words. In the middle of June the first cases were reported in Southern France from Toulon, and the following week cases were occurring in Marseilles, and quickly assumed serious proportions. As it subsided in the south of France it spread to the northern parts of Italy, and early in September Naples had become attacked with what proved to be a most virulent outbreak, the densely crowded and filthy quarters of that fair city affording congenial soil for the spread of the disease, with the result of a loss of some 11,500 lives. At this time it had disappeared from the towns in the south of France, but towards the end of October cases occurred at Yport, a small fishing village, described as filthy and dirty in the extreme, situate upon the coast of Normandy; then, after a few cases had been heard of in one or two places in Northern France, the startling official notification of its presence in Paris appeared on Nov. 5th, though it would seem that several cases had previously occurred in the capital, but were kept quiet for fear of creating a panic in the public mind; the cases increased rapidly in number daily, and on the 11th of that month 152 new cases were reported with fifty-six deaths.

The first cases occurred amongst the inhabitants of the east-end of Paris, in a dirty, filthy neighbourhood off the Faubourg St. Antoine, situate in the eleventh arrondissement, a district lying beyond the Place de Bastille; and to those familiar with this quarter, it will be admitted that for filth and degradation, both morally and physically, it is perhaps worse than anything to be found in the east-end slums of London. From the 4th to the 17th 1250 known cases had occurred, with 617 deaths, and by this time only one of the twenty arrondissements into which Paris is divided was free from cholera. During the last week in November the disease rapidly declined, and in the second week of December it was practically at an end, the cessation having been as sudden as its onset. It is difficult, in the absence in Paris of compulsory notification of infectious diseases, to state with exactitude the total number of attacks, but it was probably not less than 2000, as 900 deaths occurred, and amongst the cases treated in hospital, which were about 1000, there were more than 500 deaths, or a mortality of over 50 per cent.; but the mortality amongst these would certainly be higher than amongst those not treated in hospital. As has happened so often in the past in the history of epidemics, when the cholera reached Paris it was ill-prepared as regards hospital accommodation and general organisation for the removal of patients, disinfecting of infected dwellings, and the like. It was at first intended to use only one or two hospitals situate on the north and south of the city, but it was soon found that in face of the sudden and severe collapse, so common in cholera patients, they ran great risk of dying, and actually died, in transit from their homes to hospitals at a distance therefrom, and wards were set apart in the general hospitals situate in various parts of the city; thus, the St. Louis, Tenon, St. Antoine, Lariboisière, Cochin, and other hospitals, all received cholera patients.

At the time of the outbreak the regular ambulance service of Paris consisted of only some half dozen conveyances, which were totally inadequate for the demands made upon them, and ordinary coaches had to be pressed into the service. Immediate steps were, however, taken by the health authorities, and by the time the epidemic was declining an efficient service of forty ambulance carriages was in operation, together with a corps of disinfectors, ready at once to proceed to any house where cholera was reported to be present. In the matter of ambulances we here might with advantage take a lesson from Paris. Instead of being built as ours are of a most pronounced and distinctive, not to say funereal-looking pattern, so that everyone at a glance recognises "the fever van," they are constructed externally to resemble the ordinary coach for hire in the streets, and thus avoid observation to a very large extent. At the Health Exhibition last year there was exhibited an ambulance, built for the London Fever Hospital, which, to all outward appearance, was a handsome brougham carriage of large size, whilst inside it was fitted in every way as comfortably for the patient as could possibly be desired.

All the hospitals in Paris, as is probably well known, are supported out of the rates, and managed and controlled by the governing authorities, there being no hospitals supported by voluntary contributions, and they are under the immediate direction of the Administration de l'Assistance Publique. The routine with regard to cholera cases was as follows. On a cholera case occurring information was at once taken to the nearest police station, which is in telegraphic communication with the central Bureau de l'Assistance Publique, situate near the Hôtel de Ville; here it was decided to which hospital the case should be sent, instructions telegraphed to the nearest ambulance station for its removal, and some of the staff of disinfectors at once sent to disinfect the patient's rooms.

The hospitals visited by me were the Cochin, the St. Antoine, the St. Louis, and the Mariniers. At La Salpétrière, though not a hospital in the ordinary sense of the word, several cases occurred amongst the inmates, and Dr. Charcot informed me that the first case they had there was in an old woman who had not been out of the building for four years, and not even a guess could be given as to its origin.

At the Hôpital Cochin, the cholera patients were treated in wooden structures of which this hospital has many to supplement the accommodation in the ordinary wards. The patients were under the care of Dr. Beaumetz, who courteously afforded me much information and help. In these wards trial was made of saturating the air with ozone. The apparatus employed had previously been in use at Toulon, and consisted of a large air-pump which forced the air through a solution, the composition of which I was not able to ascertain, but which saturated the atmosphere passed through it with ozone, as shown by pieces of paper moistened with iodide of potassium and starch placed in various parts of the wards being rapidly changed in colour and darkened. There was used also in these wards a new remedy, Erigereon Canadensis, an American drug much lauded for its astringent properties in checking diarrhœa and dysentery. It appeared to check the purging when given, but in many of the cases here purging was very slight and not the most prominent symptom. The general results of these measures do not appear to have been of a very encouraging nature, as 50 per cent. of the cases proved fatal.

At the Hôpital St. Antoine, situate in the district above alluded to as being the locality where the first cholera cases appeared (and which received the largest number of any single hospital in Paris), transfusion was much practised by Professor Hayem, who had had made a very simple and easily managed apparatus for this purpose. The solution used was the ordinary one of common salt with a small pro-

[1] A paper read before the Manchester Medical Society, Feb. 4th, 1885.

pardon me, I hope, gentlemen, if I relate to you the outlines of a very instructive family history. About thirty years ago I saw a lady affected with rapid consumption, living in a small street near Bloomsbury-square; the husband, a teacher of languages, had just died under my care at the German Hospital of chronic consumption, at the age of thirty-eight. He was a member of a consumptive family. The wife's family too was by no means free from consumption; indeed, out of three brothers and two sisters, two brothers and one sister had already died of the disease. She herself had had seven children, ranging from twelve years to one year of age. The second of these had died from tubercular meningitis. The others—namely, four boys, of twelve, nine, seven, and two years, and two girls of five and one—were fairly healthy, excepting the youngest boy, who was pale and rachitic. After the death of the mother some relatives, intelligent and wealthy at the same time, took entire charge of the children. They took them to their home in a mountainous district of Silesia, one of the healthiest parts of Germany, and brought them up on the plan which I have just sketched. The oldest son remained well as long as he took much outdoor exercise, but at the age of twenty-three he became absorbed in the study of the origin and affinities of languages, worked day and night, gave up exercise, took most of his meals in his study surrounded by books, and perished from rapid consumption in less than eighteen months. The second son took to farming, and was in excellent health up to the age of twenty-nine, when he found his occupation not remunerative enough, and began to work in a commercial house, being confined to an ill-ventilated office during the greater part of the day, and working, besides this, at home with the hope of gaining a better position. After scarcely two years of this intensified city work he had several attacks of hæmoptysis, and died in less than two years from the outset. The third son has become a cavalry soldier, leading a judicious life, and is a strong and healthy-looking man. The fourth child, then a girl of five years old, is now a country parson's wife in a healthy part of Silesia, has no children, and is perfectly healthy. The youngest son, rachitic as a child, has become a powerful man, and is a farmer near Manitoba in Canada; and the youngest daughter staying with him is likewise strong and healthy.

The history of this family is very instructive. It shows that by favourable circumstances, even a strongly marked family tendency may be neutralised; and this becomes still more manifest when I add that by far the majority—viz., nine out of eleven—of the cousins of these children have died from consumption before the age of twenty-eight. It further teaches the serious lesson, that if the stringent rules of health are neglected even after the constitution has become satisfactorily developed, the disease may suddenly show itself and run a rapid course. My experience, indeed, forces me to say that a strong hereditary tendency, especially from the mother's family, requires the strictest attention, not only during the first thirty years, but from infancy to old age, for old age does not shelter from phthisis. I have notes of several cases where with a healthy mode of living the health had been perfect up to fifty, and phthisis was developed afterwards under unhygienic influences. Thus, for instance, C. M——, with a consumptive history on the mother's side, was perfectly well as a sailor up to the age of fifty-two, when on account of a chronic and fatal disease of his wife he retired from the service, and while nursing her was much confined to the house for many months. Dyspepsia and phthisis developed themselves, and he died at the age of fifty-six. A. D——, likewise with consumptive tendency from the mother, enjoyed good health as a traveller for a commercial house, till at the age of fifty-four he exchanged this occupation for office work as a partner in the house and lived altogether in town. His health began to fail after a year, and he died before he was fifty-nine. I could mention other similar instances, and have also had the opportunity of seeing repeatedly "consumption" as the certified cause of death in life insurance cases after sixty, where insurance had been effected late in life, in spite of hereditary disposition, because it had been thought that at so advanced an age the office might be secure with regard to the development of consumption. But I am convinced that where the hereditary predisposition is much marked there is only that "security" of which the great poet says:

> "And you all know security
> Is mortal's chiefest enemy."

Altogether there seems to be no good foundation for the general impression that consumption is rare in the later part of life. Dr. Somerbrodt found in twenty-five post-mortem examinations of military pensioners eleven times tubercular lesions as the cause of death, the average age at the time of death being eighty-two. Dr. Würtzburg found that in the Prussian monarchy, on comparing the number of deaths at certain ages from consumption with the number of persons of the same age living, phthisis is decidedly a more frequent cause of death among the old than among the young. Thus he gives amongst 10,000 persons living: ninety-three deaths from phthisis in the period of age from sixty to seventy; nearly sixty-eight from fifty to sixty; only forty-one from thirty to forty; only thirty from twenty to twenty-five. At Copenhagen likewise, according to Lehmann, the death-rate from phthisis to the number of persons living at the same age increases with advancing years up to the age of seventy-five. There is, however, in this respect a difference between different countries; and in England and France, for instance, the death-rate is greatest between fifteen and thirty-five. It is not easy to say what is the cause of this difference; it may be partly due to a difference in the names given to the diseases in the different countries; thus in England the number of deaths from "lung disease" in old age is proportionately greater than in Prussia, while that of "phthisis" in old age is smaller. It is possible that some cases which in England are certified as "chronic bronchitis" or other "lung disease" would receive in Prussia the name of phthisis. But part of the difference may be accounted for by the fact that during the much colder winters in Prussia old people are more confined to narrow, ill ventilated, stove-heated rooms than is the case in England, where the cold is never great, and where open fireplaces do not allow the air to be vitiated to the same degree.

The preventive treatment of the *acquired predisposition* to phthisis is similar in principle to that of the hereditary predisposition, though generally it is not required for the whole of life, but only for a shorter or longer period, excepting in those cases where, by deterioration of the health of the parents during the period preceding fecundation, or of the mother during pregnancy, or by unfavourable influences during the first periods of extra-uterine life, permanent weakness or insufficiency has been created. The preventive treatment must be varied according to the constitution and the circumstances of the individual, the causes which have produced the predisposition, and the system or part of the body principally weakened. You will not wish me to enter into details, but allow me briefly to discuss a few points only. A fruitful source of phthisis is the *tendency to catarrh of the respiratory mucous membrane*. It is not to be treated by confinement to hot rooms and by avoiding the open air; but, on the contrary, by hardening and by accustoming the delicate person, clothed in flannel, but not loaded with clothes, to constant exposure to the air in almost all weathers—walking, driving, riding in open carriages; by abundant though judicious ventilation of the rooms; by regular sponging of the skin—at first tepid, perhaps with vinegar, afterwards cold—and by friction; by strengthening the whole system by nutritious food and by frequent prolonged changes to the seaside or the mountains, according to the nature of the constitution. These frequently recurring catarrhal affections may form predisposing causes in different ways, especially by producing sore places in the mucous membrane and thus allowing the bacillus to settle; or by weakening the epithelial cells of the mucous membrane and their ciliary action, or by causing imperfect breathing from unconsciously avoiding deep inspirations in order to avoid coughing, or by weakening the nutrition and energy of the whole system. The latter element is powerful, and by no means rare. Many persons remain excessively weak for a long time after a so-called "severe cold," and lose entirely their appetite and their inclination to exercise and to work.

The tendency to imperfect breathing which often accompanies protracted colds is best remedied by judicious exercise, even if it causes at first fatigue. Persons presenting the imperfect development of the thorax, often described as the "paralytic form," and the general appearance known by the term "phthisical habitus," whether hereditary or acquired, demand similar management, as those subject to constant catarrhs. The imperfect development of the thorax especially requires pulmonary gymnastics, deep inspirations, alternating with complete expirations, breathing with raised arms in order to allow free entrance of air into the apex, judicious climbing of hills and mountains. It is not only our duty to remove the acquired disposition, but also to prevent the acquirement of it by physical education,

general hygiene, and by the management of acute diseases, especially those which affect the respiratory organs, as measles, whooping-cough, diphtheria, bronchitis, pneumonia. The broad rules laid down by Dr. Wilson Fox, in his article on Pneumonia in Dr. Russell Reynolds's "System of Medicine," relieve me of the duty of further entering on this subject. But with regard to measles, diphtheria, and whooping-cough, I cannot help pointing out the injurious influence of hot rooms and fear of ventilation, to which I have been repeatedly obliged to ascribe a share in the cause of phthisis. Change of air to mild seaside or fairly bracing inland places is often important during the convalescence from these diseases, but the fatigue of long journeys is to be avoided.

Preventive medicine has a very large field in the subject of phthisis. I need only remind you of the change in the phthisis mortality of soldiers and prisoners by improved ventilation in barracks and prisons, and we must always have before our minds the important discovery of Bowditch and Buchanan, that drying of the soil by drainage diminishes the mortality from phthisis. The practical application requires no words.

SOME BRIEF NOTES ON THE LATE OUTBREAK OF CHOLERA IN PARIS.[1]

BY HY. TOMKINS, M.D., B.Sc., &c.,
RESIDENT MEDICAL OFFICER, MONSALL FEVER HOSPITAL, MANCHESTER.

THE outbreak of cholera in Paris during last November afforded an opportunity for those interested in epidemic diseases of seeing and studying this scourge of Eastern countries; and at the end of the month I visited Paris for that purpose, though at that time the outbreak had begun to subside almost as rapidly as it commenced, so that in all I saw only some forty to fifty cases. The history of its appearance and progress in Europe last year may be summed up in a very few words. In the middle of June the first cases were reported in Southern France from Toulon, and the following week cases were occurring in Marseilles, and quickly assumed serious proportions. As it subsided in the south of France it spread to the northern parts of Italy, and early in September Naples had become attacked with what proved to be a most virulent outbreak, the densely crowded and filthy quarters of that fair city affording congenial soil for the spread of the disease, with the result of a loss of some 11,500 lives. At this time it had disappeared from the towns in the south of France, but towards the end of October cases occurred at Yport, a small fishing village, described as filthy and dirty in the extreme, situate upon the coast of Normandy; then, after a few cases had been heard of in one or two places in Northern France, the startling official notification of its presence in Paris appeared on Nov. 5th, though it would seem that several cases had previously occurred in the capital, but were kept quiet for fear of creating a panic in the public mind; the cases increased rapidly in number daily, and on the 11th of that month 152 new cases were reported with fifty-six deaths.

The first cases occurred amongst the inhabitants of the east-end of Paris, in a dirty, filthy neighbourhood off the Faubourg St. Antoine, situate in the eleventh arrondissement, a district lying beyond the Place de Bastille; and to those familiar with this quarter, it will be admitted that for filth and degradation, both morally and physically, it is perhaps worse than anything to be found in the east-end slums of London. From the 4th to the 17th 1250 known cases had occurred, with 617 deaths, and by this time only one of the twenty arrondissements into which Paris is divided was free from cholera. During the last week in November the disease rapidly declined, and in the second week of December it was practically at an end, the cessation having been as sudden as its onset. It is difficult, in the absence in Paris of compulsory notification of infectious diseases, to state with exactitude the total number of attacks, but it was probably not less than 2000, as 900 deaths occurred, and amongst the cases treated in hospital, which were about 1000, there were more than 500 deaths, or a mortality of over 50 per cent.; but the mortality amongst these would certainly be higher than amongst those not treated in hospital. As has happened so often in the past in the history of epidemics, when the cholera reached Paris it was ill-prepared as regards hospital accommodation and general organisation for the removal of patients, disinfecting of infected dwellings, and the like. It was at first intended to use only one or two hospitals situate on the north and south of the city, but it was soon found that in face of the sudden and severe collapse, so common in cholera patients, they ran great risk of dying, and actually died, in transit from their homes to hospitals at a distance therefrom, and wards were set apart in the general hospitals situate in various parts of the city; thus, the St. Louis, Tenon, St. Antoine, Lariboisière, Cochin, and other hospitals, all received cholera patients.

At the time of the outbreak the regular ambulance service of Paris consisted of only some half dozen conveyances, which were totally inadequate for the demands made upon them, and ordinary coaches had to be pressed into the service. Immediate steps were, however, taken by the health authorities, and by the time the epidemic was declining an efficient service of forty ambulance carriages was in operation, together with a corps of disinfectors, ready at once to proceed to any house where cholera was reported to be present. In the matter of ambulances we here might with advantage take a lesson from Paris. Instead of being built as ours are of a most pronounced and distinctive, not to say funereal-looking pattern, so that everyone at a glance recognises "the fever van," they are constructed externally to resemble the ordinary coach for hire in the streets, and thus avoid observation to a very large extent. At the Health Exhibition last year there was exhibited an ambulance, built for the London Fever Hospital, which, to all outward appearance, was a handsome brougham carriage of large size, whilst inside it was fitted in every way as comfortably for the patient as could possibly be desired.

All the hospitals in Paris, as is probably well known, are supported out of the rates, and managed and controlled by the governing authorities, there being no hospitals supported by voluntary contributions, and they are under the immediate direction of the Administration de l'Assistance Publique. The routine with regard to cholera cases was as follows. On a cholera case occurring information was at once taken to the nearest police station, which is in telegraphic communication with the central Bureau de l'Assistance Publique, situate near the Hôtel de Ville; here it was decided to which hospital the case should be sent, instructions telegraphed to the nearest ambulance station for its removal, and some of the staff of disinfectors at once sent to disinfect the patient's rooms.

The hospitals visited by me were the Cochin, the St. Antoine, the St. Louis, and the Mariniers. At La Salpétrière, though not a hospital in the ordinary sense of the word, several cases occurred amongst the inmates, and Dr. Charcot informed me that the first case they had there was in an old woman who had not been out of the building for four years, and not even a guess could be given as to its origin.

At the Hôpital Cochin, the cholera patients were treated in wooden structures of which this hospital has many to supplement the accommodation in the ordinary wards. The patients were under the care of Dr. Beaumetz, who courteously afforded me much information and help. In these wards trial was made of saturating the air with ozone. The apparatus employed had previously been in use at Toulon, and consisted of a large air-pump which forced the air through a solution, the composition of which I was not able to ascertain, but which saturated the atmosphere passed through it with ozone, as shown by pieces of paper moistened with iodide of potassium and starch placed in various parts of the wards being rapidly changed in colour and darkened. There was used also in these wards a new remedy, Erigereon Canadensis, an American drug much lauded for its astringent properties in checking diarrhœa and dysentery. It appeared to check the purging when given, but in many of the cases here purging was very slight and not the most prominent symptom. The general results of these measures do not appear to have been of a very encouraging nature, as 50 per cent. of the cases proved fatal.

At the Hôpital St. Antoine, situate in the district above alluded to as being the locality where the first cholera cases appeared (and which received the largest number of any single hospital in Paris), transfusion was much practised by Professor Hayem, who had had made a very simple and easily managed apparatus for this purpose. The solution used was the ordinary one of common salt with a small pro-

[1] A paper read before the Manchester Medical Society, Feb. 4th, 1885.

portion of sulphate of soda, and it was had recourse to not only in the worst cases, but also in those of a less severe type, and a considerable number of those thus treated recovered. Usually the injection was made into one of the veins at the bend of the elbow, but in some cases the internal saphenous vein in front of the inner ankle was selected. The immediate effect of that treatment was often for a time most marked and beneficial, appearing to give the patient temporarily new life, but as a general result of the treatment here the mortality also reached 50 per cent. Should I ever have to treat cholera myself, I should certainly be inclined to give transfusion a trial in bad cases, as it without doubt in many instances helps to prolong life where it does not actually succeed in saving it.

It was at the Hôpital Mariniers, situate near the fortifications to the south-west of Paris, that the most perfect arrangements, from a sanitary point of view, had been put into operation. This was a new hospital, scarcely finished at the time of the outbreak, and was erected for the purpose of an infectious hospital, and presents some interesting features in hospital construction. It has accommodation for 300 patients, and was built in about six weeks. The wards are all one-storeyed only, and are raised upon wooden piers above the ground, so that the air circulates below as well as above and around them. It was built in a skeleton frame-work of wood, this being brought to the site ready to put together, and the spaces were then filled in with brick-work, consisting of only one brick in thickness placed end to end, so that the walls are only some four inches thick. Externally they present a neat and substantial appearance. On the inside the walls were finished off with plaster, and had a much more comfortable appearance than the usual temporary wooden erections, and gave none of the difficulties in maintaining an equable and proper temperature met with in these latter. The arrangements for disinfecting everything connected with the wards, &c., was most complete. A large gas stove, on the same principle as the Ransome (Nottingham) disinfecting stove, had been constructed. A special room for fumigating with sulphurous acid fumes was built, and still further machinery was erected of a very simple but apparently efficient character for disinfecting all the waste water, slops, and sewage before leaving the hospital sewers. At the extremity of the grounds a large tank was constructed in the earth, into which all the hospital sewers opened; adjacent to this was erected a strongly made iron cylinder and a large steam boiler. The sewage was drawn into the cylinder and then subjected to a temperature of over 300° by steam forced into it from the boiler before being discharged into the sewers of the town, a temperature probably sufficient to kill all forms of germ life. The working of this was most simple, and necessitated the attendance of only one man, and was in operation day and night. In the wards themselves all infective material—stools, vomit, urine, soiled linen, &c.—were at once treated with chloride of zinc, and this appears to have been the practice followed at most of the other hospitals, chloride of zinc being apparently the disinfectant most in vogue in Paris. For the disinfection of rooms, houses, and conveyances sulphurous acid was used. The treatment adopted at the Hôpital Mariniers was not of a very special character; opium in the form of paregoric and wine was much used, the limbs rubbed with a turpentine liniment, and hot air baths also given, these two latter remedies appeared to give much relief to the muscular cramps. The mortality here and elsewhere was 50 per cent. The bodies of those who died were covered with sawdust saturated with chloride of zinc, and buried in a few hours.

As one who saw cholera patients for the first time, what struck me with most force was the great fear which seemed to lay hold of many of these patients, so unlike anything met with in the ordinary zymotics—such as small-pox, typhus, diphtheria, and the like. The sudden and extreme collapse, the comparative absence of real delirium, and as the later stages come on the shrunken features, the shrunken eyeball, dark areola round orbit, and the shrivelled, inelastic condition of the skin, so that when pinched and raised up it showed scarcely any elasticity or tendency to retract itself in the normal manner. In one man at the Hôpital Cochin this inelastic state was marked even in the convalescent stage. After seeing patients in the collapse of cholera it is easy to understand how it has been possible to mistake patients really alive for dead, so like is the condition to that of a corpse. After death this shrunken, livid appearance is perhaps as characteristic of the disease as any of the anatomical lesions met with, these latter being quite as vague and indefinite as those of typhus, and in the absence of any ante-mortem history it would, I think, be difficult to diagnosis a case of cholera from a post-mortem examination alone. There were usually more or less inflammatory changes in the mucous membrane of the intestinal canal, but these varied much in degree; other lesions described were equivocal and doubtful in the cases which came under my notice.

Any remarks upon cholera at the present day without an allusion to the comma bacillus would indeed be the play of "Hamlet" with Hamlet left out; but as a matter of fact, when brought face to face with the treatment and management of the disease, the bacillus has no *locus standi* either as regards treatment or hygienic measures. Whatever may be the ultimate outcome of Koch's discovery, at present it is like the bulk of the work of the physiologist and biologist—interesting chiefly in the laboratory, though none the less great and important results may, and probably will, flow therefrom to practical medicine and treatment of disease. Few of the physicians in Paris (amongst the exceptions notably Dr. Strauss) appeared to trouble themselves much about the bacilli, and in some of the wards but little attempt was made even to find them. Koch describes them as easily found by staining in the ordinary manner; but although I have searched since my return, and have had also the assistance of Dr. Dreschfeld, I have up to the present time not been able to find one, to my mind, respectable comma bacillus in either stools or intestine, though ordinary putrefactive bacilli are to be found in abundance. The further knowledge we have gained respecting cholera from the outbreak in Paris and Europe generally last year has been but little; it did not need this to teach us that filth and overcrowding and insanitary conditions generally formed its special home, or that the poor, the badly-fed, and the intemperate were its especial victims. In its treatment we have advanced nothing; of its origin, mode of spreading, its incubation, and its cause we are as much in the dark as ever. Further evidence has been gained that, given good sanitary surroundings, there is but little risk of direct infection from the sick; amongst the large number of medical men, students, nurses, and other attendants on the sick in Paris, I was not able to ascertain that a single case had occurred.

To those familiar with the cesspool arrangements in Paris, together with the suspicion as to the purity of some of its water-supply, it will appear highly probable that in the present year we shall have again opportunity of studying all and everyone of these questions, even if the disease does not reach our own shores, for spread as it was more or less throughout Paris, there must be myriads of bacilli only waiting for the coming summer and favourable conditions of growth to again break out into activity and life.

ELECTRIC ILLUMINATION OF THE VARIOUS CAVITIES OF THE HUMAN BODY, FARADISATION, GALVANO-CAUTERISATION, AND ELECTROLYSIS, BY MEANS OF POCKET ACCUMULATORS.[1]

BY FELIX SEMON, M.D., M.R.C.P. LOND.,
ASSISTANT-PHYSICIAN IN CHARGE OF THE THROAT DEPARTMENT OF ST. THOMAS'S HOSPITAL.

(*Concluded from p. 471.*)

1. *Illumination.*—For illumination of the mouth, pharynx, naso-pharyngeal cavity, larynx, nose, ear, vagina, and rectum one universal instrument has been constructed. Its total length is 8¾ inches. It consists of an ebonite handle 4½ in. in length by ½ in. in diameter, attached to which at one end is a German silver stem or tube, 2¾ in. in length by ¼ in. diameter. Fitted at the end of this tube is an ebonite socket, ½ in. long by $\frac{7}{16}$ in. diameter, inside of which are two platinum springs connected to two insulated copper wires running the whole length of the instrument to two terminals at the rear of the handle. These latter terminals are connected to a flexible silk cord, which connects the accumulator with the instrument. Fitting into the above socket

is the shank of another socket, containing a small incandescent lamp, which is secured therein by means of plaster-of-Paris. Connexion between the lamp and the platinum spring mentioned before is made by the shank being inserted and fixed by means of a bayonet joint, which, as soon as the proper position has been acquired, establishes good electrical communication. The circuit is completed when the practitioner, who holds the instrument like a penholder, depresses a small brass switch fitted on the handle for that purpose, and in such manner as not to inconvenience his grip. The lamps are only ¼ in. at the largest part, and $\frac{1}{16}$ in. in length. The electro-motor force of these accumulators and lamps has been tested by Mr. Vesey, who finds that the average of those he has tested gives about 4·25 volts, and the internal resistance about ·4 ohm. It may be mentioned that the practitioner may at a slight expense be able to estimate the electro-motor force, or working condition, of the Bunsen battery, as well as of the accumulators at any time by means of a small galvanometer. The force of the current is estimated by the amount of deflection of the needle; the greater the deflection, the better the condition of the battery and accumulators. The delicacy of the carbon filament of the lamp renders it almost impossible to manufacture them with the same amount of resistance in each, and it will be found that there exists considerable difference in this respect in individual lamps. If it be therefore stated that the average amount of resistance in the lamps is 3·8 ohms, this statement must be accepted in quite a general sense; it has in fact been found by us that sometimes lamps with too little amount of resistance will be brought beyond the point of incandescence if connected direct to a powerful and well-filled accumulator. This means practically the burning of the carbon filament and destruction of the lamp. In order to avoid such a contingency, a small resistance coil has been fitted to one side of the handle of the instrument. A small scale divided in 4 ohms or less is placed by the side of the resistance coil; the maximum amount of resistance being marked towards the rear of the handle, the minimum towards the other end, being marked 4 and 0 respectively. By simply pushing the sliding contact opposite any of the divisions the practitioner can accurately regulate the amount of light required for this purpose. It is desirable, when working with a *new* lamp, that the total amount of resistance be placed in circuit, and then altered till the point of incandescence is reached; thereby many a lamp will be saved from being spoiled.

The instrument just described, and attached to an accumulator, will be found very serviceable for the illumination of the pharynx, mouth, ear, nose, vagina, and rectum. It gives an equal, steady light, the brilliancy of which can be regulated up to about two candles power. At the same time the top of the instrument gets warm so slowly that for all practical purposes this question can be left entirely out of view. It is of course necessary not to touch moist mucous membranes with the projecting segment of the lamp, because, though the bulb is very strong glass, yet accidents may occur under such circumstances; however, by exercising ordinary care they will be entirely avoided. In case the illumination of more deeply situated cavities of the body be desired, as of the abdominal cavity after ovariotomy, or of the bladder after lithotomy, it will only be necessary to provide the instrument with a somewhat longer stem. The greatest triumph, however, will be reserved, I anticipate, for the instrument in its application to laryngoscopy and posterior rhinoscopy. It is quite true that a real, fortunately not very frequent, difficulty of the former mainly depends upon the configuration and degree of elevation of the epiglottis, but I have little hesitation in saying that a large number of beginners are already deterred from pursuing their laryngoscopic studies by the difficulty they experience in concentrating the light reflected from the frontal mirror attached to their forehead upon the laryngeal mirror held in the patient's fauces. The electric laryngoscope presently to be described does away with the whole difficulty of double reflection, and thus with the difficulties just mentioned. It is constructed at a moment's notice by the practitioner himself by simply slipping the stem of the laryngoscopic mirror into a sliding collar fixed by spring jaws to the stem of the instrument, which collar is capable of begin rotated round the stem, and thereby giving the mirror an almost universal movement, and enabling the operator to hold the instrument in the manner most convenient to himself. It has been mentioned before that the little lamp and its coverings get warm very slowly; so little indeed is the amount of heat given out, that with the electric laryngoscope it is as necessary as with the common one to warm the mirror previous to introducing it in the usual manner, in order to avoid the condensation of the expired air on the reflecting surface. It is a most important point, found by me only after very long-continued and laborious trials, that for the purpose of laryngoscopy the mirror should be pushed into close proximity to the lamp, and the latter should be just opposite its *uppermost* part, and in a line with the vertical diameter of the mirror; whilst, on the other hand, in posterior rhinoscopy the lamp should be in a line with the vertical diameter of the mirror, but this time opposite its *lowest* part. Attention to these two points is very necessary to secure good illumination of the parts in question. By following the foregoing directions, the operator will obtain a very good image of the parts with far less trouble than by the old method. (Fig. 2.)

I have now used the instrument for laryngoscopy and rhinoscopy in both hospital and private practice; and among the cases I have examined were some which may fairly be designated as test cases—cases in which the patients were in bed in the recumbent position, and unable to move; and in all these cases the electric instruments have fully answered my expectations. I have repeatedly extirpated laryngeal growths, holding the forceps in my right hand and the electric laryngoscope in my left, in the usual manner. Of course, mirrors of various sizes, and supplied with stems of the same diameter, may be inserted into the before-mentioned sliding collar, so that the practitioner will actually only require one universal handle for illuminating the different cavities. It is here the place to make an observation about the colour imparted to the structure by the electric light. Unless the full point of incandescence be reached, the light has a peculiar reddish-yellow tinge of its own, and the parts

FIG. 2.

The universal handle, with laryngoscopic mirror attached. H, Ebonite handle. S, Stem of German silver. E', Ebonite socket containing platinum springs. E², Ebonite socket containing incandescent lamp, and fixed into E¹ by means of a bayonet joint. L, Laryngoscopic mirror, attached to S by means of sliding collar (C), in which it is fixed by screw (c). W, Brass switch, by pressure upon which the circuit is completed. R, Resistance coil. &c. Sliding contact for regulation of the amount of resistance. T¹, T², Terminals for connexion with wires leading to the accumulator.

appear more brilliantly coloured than they really are. It will be necessary to keep this in mind, and to examine a few patients, first with the ordinary daylight and then with the electric light, or *vice versâ*, in order to avoid erroneous diagnoses of "congestion of the mucous membrane."

Finally, it may be observed that when operations have to be performed within such narrow cavities as those of the nose and ear, it will be impossible to introduce the lamp—though this alone can be easily passed into the nose between the branches of a Duplay's speculum—simultaneously into the nasal or aural speculum with any instrument by means of which the operation has to be performed. In order to obviate these difficulties I have borrowed from the interesting paper of Dr. Macintyre in the *Glasgow Medical Journal* of February, 1885, on the Use of the Electric Light in Medicine, the idea of having my little incandescent lamps provided with a clip easily attachable to any of the specula for examination of any cavity, and permitting the introduction of instruments through this, whilst at the same time the field of operation is sufficiently illuminated. This will be useful in cases of polypi, hypertrophy of the nasal mucous membrane, aural polypi, operations on the tympanum, &c.

2. *Faradisation.*—The electro-motor force of the accumulators can be made useful in a very simple manner for faradisation by simply attaching the leading wire from the accumulators to the terminals of a small coil as used for medical purposes. It has been found that for a small coil one accumulator is quite sufficient, and, in fact, it is not advisable to increase the number of accumulators unless the practitioner is certain that the insulation of his coil is perfect. The strength of the current can, of course, be regulated in the usual manner by the sliding tube which covers the core of the coil. The use of the accumulator for these purposes will enable the practitioner to dispense with

the ordinary box containing the bichromate battery and coil, the former of which is, according to my own experience, very apt to be out of order just when it is wanted.

3. *Galvano-cauterisation.*—A considerable advance towards the popularisation of this most valuable method will be made, I hope, by the introduction of accumulators as generators of the electric current. Hitherto it has been urged, with a certain degree of justice, that the apparatus necessary for it was very cumbersome, apt to get out of order, expensive, and capable of being used only in the practitioner's private house. A good galvano-caustic battery entails a considerable outlay, and such batteries, which are filled with bichromate of potash solution, can hardly be used at patients' homes, except in quite exceptional cases. Thus, certain minor operations, in which the galvano-caustic method is most useful—as, for example, destruction of pharyngeal granulations, removal of nasal polypi, &c.—are at this moment practically limited to the practitioners' own residences. The substitution of three or four accumulators coupled together in the same way as an ordinary battery of several cells (i.e., the *minus* pole of one and the *plus* pole of the other, and so on throughout the series, and finally connecting the two poles, which are left unoccupied, to the wires leading to the instrument) will enable the practitioner to perform in future such minor galvano-caustic operations at the patient's own residence. The combined electro-motor force of from two to four accumulators suffices to bring the platinum or steel wire used in connexion with my friend Dr. Schech's (of Munich) excellent galvano-caustic instruments up to any degree of heat, from dull-red to white. In order to regulate the degree of heat, I have requested Mr. Weiss to supply a small resistance coil of the same pattern as that used for the universal handle to the handle of Dr. Schech's écraseur and knives. I may remark that I find the accumulators get comparatively soon exhausted when heating the instruments, and that some little time elapses before the platinum points are heated. The explanation of this is that the steel wire or platinum points offer a very considerable resistance. It will therefore be necessary to be quite sure that one is in the possession of several well-charged accumulators before starting upon a galvano-caustic operation at the patient's house.

4. *Electrolysis.*—It is obvious that the electro-motor force of the accumulators can be used for electrolysis. For this purpose one accumulator will suffice, and indeed in most cases so much less current will be required than that supplied by one accumulator, that it has been deemed advisable to interpolate a small resistance into the wire between the terminals of the accumulator and the electrolytic needles used for the destruction of tumours.

I am far from believing that the apparatus just described is incapable of further improvement. Nor do I claim great originality for the idea or the adoption of the different elements of its construction for the purposes just mentioned. But I think I may claim for the apparatus that it is the first of its kind which enables the practitioner to get by a small outlay possession of a portable and trustworthy apparatus, by means of which he can more easily than formerly examine the cavities of the human body, especially the larynx and the naso-pharyngeal cavity; and perform faradisation, galvano-cauterisation, and electrolysis at the patient's own house without constantly being in the instrument maker's hands, and all at a smaller expense than was formerly involved by the purchase of a set of laryngoscopic instruments, a faradaic coil, a galvano-caustic battery, &c.

P.S.—Sooner than I anticipated one of the possibilities of further improvement bids fair to become an actuality. Mr. Vesey has informed me that a new primary battery has been invented, which possibly may supersede the accumulator altogether. This battery will be made by the Primary Battery Co., London. It is constructed in the form, and nearly in size, of one of the accumulators just described, and its peculiarities are enumerated in the following note, kindly made for me by one of the officers of the company.

NOTE ON THE PRIMARY BATTERY.

"In its ordinary form this battery offers the following advantages over the batteries in general use at the present time, such as the Bunsen, Fuller, Daniell, Leclanché, &c. It has a high and constant electro-motive force, a very low internal resistance, and is the very simplest possible form of a voltaic battery—viz., two elements (positive and negative) immersed in a simple and inexpensive fluid. The electro-motive force of each couple is two volts, and remains constant at this until the cell is nearly exhausted, or until all the work which it is calculated to do has been got out of it. In order to obtain the E.M.F. of two volts with other primary batteries it is necessary to use two different exciting fluids, one of which is contained in a porous pot. One of these fluids is usually nitric acid, which is very objectionable on account of its fumes, and is also expensive. In the new battery both the plates dip into a fluid which consists of one part by bulk of sulphuric acid to nine parts of water. The use of a porous pot in a battery also adds greatly to its resistance, and there is therefore a great gain in this direction, in being able to dispense with it. In the form in which it is now shown (small pocket form, for surgical purposes), it offers the following advantages over the secondary batteries, which up to the present time have been found the most convenient. In the first place, the fact of its being a primary battery is of great advantage, because the process of 'charging' is superseded, and the practitioner has simply to take the plates and insert them in the cover of the cell, fill the cell with the diluted acid and water, and fasten down the cover, to obtain at once a battery in full working order. When the battery is worked out the cover is removed, a fresh pair of plates and a little fresh fluid introduced, and the battery is again ready for use. In action the battery is practically the same as the accumulator already described."

I have considered it my duty to give full particulars, so far as I know them myself, of this new battery; because, if all the foregoing statements be sustained by facts, there can be little doubt that this battery will ultimately take the place of the accumulators. At the same time, it must be distinctly understood (1) that I am quite unable to bear out any of these statements by personal experience, not having had the opportunity of working with the battery at all; (2) that it is still an open question whether it will be possible to manufacture these batteries in such a form as to enable the practitioner to recharge and insert fresh plates himself, if the battery be of the sealed pattern; and (3) that the battery is not yet in the market, and I am unable to say when it will be. I shall, of course, pursue my experiments with it, and shall not fail to supplement this paper by further details as soon as satisfactory results have been obtained. Considering, however, the length of time which has elapsed since I first began to experiment in this line until to-day, when I bring the first results of those experiments before you, I have no hesitation in recommending those who are anxious to avail themselves of electricity in a portable form to make for the present the accumulators the base of their apparatus.

TRAUMATIC CATARACT; ABSOLUTE DISAPPEARANCE OF LENS AND CAPSULE WITHOUT OPERATION; PERFECT VISION WITH (?) POWER OF ACCOMMODATION.

BY T. H. BICKERTON,

LATE CLINICAL ASSISTANT, MOORFIELDS OPHTHALMIC HOSPITAL.

THE case recorded below is one of such unusual occurrence and of so unique a character that I think it is quite worthy of being put on record. It occurred in the practice of Mr. Shadford Walker, and I am indebted to that gentleman for the privilege of publishing it.

Mr. T. H——, aged fifty-six, consulted Mr. Shadford Walker in May, 1884, on account of a "cold" in the left eye. "It is," he said, "my only working eye, and I am very anxious about it." Noticing that the iris of the right eye was very tremulous, I asked what had happened to it. His answer was that it was almost useless; he had had an injury to it when a young man, and could now only distinguish large objects with it. Further inquiries elicited the following history. Twenty-nine years ago (when twenty-seven years old), whilst working in a foundry, he was struck in the right eye with a piece of steel, and within six months from the time of the accident he became quite blind, owing to the formation of cataract in that eye. He was recommended by an oculist to submit to an operation for the removal of the cataract, but declined, preferring to remain

with one good eye rather than run any risk of the operation affecting in any way the sight of the left, which was perfect. For three years and a half he remained in total blindness with the right eye. One day when passing through some very sandy ground a quantity of sand was blown into his eyes, causing him to shut them violently. On reopening them, to his surprise, he found that he could see with his right eye, being able to count his fingers, and his medical man, on whom he called immediately, told him that the cataract had disappeared. From that time until the present, twenty-five years and a half, he consulted no one about the eye, and has been content to go about able to see with it any large object. He has frequently tried to obtain from opticians a glass that would help him, but without success. Of late years he fancies there has been an improvement in his vision, though only very slight. Since, however, the attack of inflammation in the left eye, which has now lasted for some weeks, he has found the right eye very useful in helping him to get about; for although he could not distinguish features, he could see his way well enough to keep himself out of danger. For the last two years he has worn for the left eye a + 2 D. for doing his reading and writing.

Present condition.—Testing gave the following results:—Right eye, ♀: Sph. + 10 D., $\frac{6}{6}$, perfectly. Sph. + 10·25 D., $\frac{6}{6}$, perfectly. Sph. + 10·50 D., $\frac{6}{6}$, perfectly; $\frac{6}{5}$, perfectly. + 10·75 D., $\frac{6}{6}$, perfectly, but not so good. Thus, at a distance he had not only perfect vision; but an acuteness of vision beyond the normal. One point I noticed in the examination was that if the + 10 D. was put up immediately after the + 10·50 D., he could only read with it $\frac{6}{6}$, it being a moment or two before the $\frac{6}{5}$ came into view. Left eye (fixed pupil due to recent iritis), $\frac{6}{6}$: Sph. + ·75 D., $\frac{6}{6}$. Right eye: Sph. + 14 D., Jaeger 1, with ease. With the + 14 D., and bringing the type slowly towards him, he was able to distinguish words, when the print had been brought to 12½ in. from the eye, at a distance of 9 in. the print became most distinct, and it was not until it was brought to within 6½ in. from the eye that the print became too indistinct to read. Not only, therefore, was his near vision perfect, but it was also evident from his statements that he had a very extensive range for near vision. Left eye, sph. + 2·50 D. Jaeger 1, easily. The right pupil in ordinary light was 2¾ mm. in size, dilating in the dark to 4½ mm., and contracting on exposure to bright light to 2 mm. On the eye being directed from a distant object to an object held close to the eye, either with a lens before the eye or not, the pupil contracted, the change being from 2¾ or 3 mm. to 2 mm. (Great care was taken that the amount of light was the same both for the distant and near object.) The iris was very tremulous, hanging in its normal position, pupil circular, dilating and contracting regularly to variations in light. There was no sign either of lens or capsule. A careful examination and accurate focusing did not lead to the detection of any membrane whatever. The cornea showed a minute faint opacity just above and to the inner side of its centre, indicating where the piece of steel had struck the eye. On ophthalmic examination the disc was normal both as to tint (pale) and size of vessels. The fundus was normal, and though I looked carefully I could find no foreign body or irregularity existing on the surface of the retina.

Two points of interest occur in this case—the idiopathic and complete disappearance of the lens and capsule, and the apparent existence of accommodative power in an eye minus its lens. The first is a pure example of the operation of solution, and the result is that aimed at by every oculist who operates upon a soft cataract. The piece of steel acting the part of the surgeon's needle must have wounded the lens capsule, admitting the aqueous fluid to the lenticular substance. This in its turn would undergo disintegration and eventual absorption, but the process here went further and caused absorption of every particle of the capsule, thus making a perfect result. Though this latter does occasionally occur after operations both on soft and hard cataracts, it is not of common occurrence. Apparent existence of accommodative power in an eye minus its lens. It is well known that on either side of our strictly mathematical focus for near objects (p.p.), there is a small range of space in which we can see, provided the circles of diffusion are cut off by means of a stenopaic hole, but this space is never very great, and in no experiment that I have made does it extend to six inches. To what, then, can the range for near vision in the present case be ascribed? To accommodation? If so, in what manner does it act? As I have been unable to find any references to the question of accommodation in an eye minus its lens which throw any light on the point, I should be glad of any information.

In conclusion, I have to thank Mr. Shadford Walker for verifying my statements with regard to the distances at which Mr. T. H—— was able to read.

Liverpool.

TWO CASES OF

HERNIA OF THE LUNGS INTO THE NECK;

ONE VERIFIED BY POST-MORTEM EXAMINATION.

BY SURGEON-MAJOR MAURICE KNOX, A. M. D.

THE notes of the following two cases may be deemed worthy of record. They are the only instances of displacement of the lung into the neck that have come under my personal observation; although such a lesion is, I am aware, described by Dr. Roberts.

Private W——, 2nd East Surrey Regiment, aged twenty-two years, a delicate thin man, was admitted into the Station Hospital, Bareilly, under my care, on June 30th, 1884, with the following history. He had been fairly healthy up to December, 1882, when he was admitted into hospital at Gibraltar with bronchial catarrh, and remained a hundred and forty-six days under treatment. He was subsequently twice in hospital under the head of "bronchitis." He stated that in February, 1884, while on the march, he had a violent fit of coughing, and felt something give way in the left side of the neck. The pain was rather severe at the time, but he was able after a short rest to walk into camp On looking at himself in the glass, he observed a tumour above his left clavicle the size of a hen's egg. He continued to perform his duty up to June 30th, when he presented himself at hospital complaining of slight pain in his chest, dyspnœa on exertion, and dry cough. On examining the patient's chest there was marked resonance over the left side, the whole cardiac region appeared to be covered with lung tissue, the inspiratory murmur was short and the expiratory murmur prolonged. There was a peculiar crackling râle audible over the whole of the front of the left lung, especially along the thin edge. Above the left clavicle there was a tumour about the size of a turkey's egg; it was superficially situated, soft and compressible to the feel; and on auscultation respiratory sounds were audible over it, accompanied by the same crackling râle heard below the clavicle over the left lung. When the patient coughed the tumour became more prominent; the skin over the tumour was free and quite healthy; there was no impediment to the circulation or symptom of pressure of any kind; and the only inconveniences the patient experienced were slight pain in the chest and dyspnœa on exertion. The right lung was fairly healthy. The patient remained in hospital up to December, 1884, and the only change that has taken place in the case is that the lung hernia has increased to the size of a large orange. No treatment of any kind further than rest has been attempted.

Dr. Wilkie, of the Indian Medical Service, who was greatly interested in the case, has kindly supplied me with the following notes of a very similar case that, strangely enough, occurred in his own practice about the same time:—

Jewra, aged fifty, a native prisoner in Bareilly Central Prison, a man who frequently suffered from attacks of asthma, was admitted into hospital on July 2nd, 1884, suffering from fever and general debility. He died suddenly from syncope, about half an hour after returning from the latrine, on July 8th, 1884.

Post-mortem examination. — The body was thin and very slightly jaundiced. The heart was pale and flabby, the left ventricle being hypertrophied. The left lung was emphysematous, especially along the anterior border and at the apex. The right lung was emphysematous on the anterior border; the apex was protruded beneath the clavicle into the neck. It was dilated into a translucent tumour about the size of a man's fist, in which most of the alveolar structure of the lung had disappeared. On removing the lung the entire hand could be passed upwards beneath the clavicle from the cavity of the thorax, and the superficial structure of the neck bulged out into a tumour. In the left lung the emphysema was in a less advanced stage, and there was no protrusion upwards. The lungs showed otherwise nothing abnormal except a little muco-pus in some of the tubes, and perhaps a little thickening of the tubule walls. The kidneys

were mostly clear but somewhat mottled, with the Malpighian bodies standing out very red and distinct. The spleen was small and soft. The liver was hyperæmic and very slightly jaundiced; the acini were somewhat marbled and nutmeggy in character, with large red centres and pale circumferences. The stomach and intestines were healthy.

Bareilly.

SUCCESSFUL OPERATION ON A REMARKABLE CICATRICIAL BAND.

BY GEORGE WHERRY, M.C., F.R.C.S. ENG.

AN undergraduate aged twenty-four, looking very pale, worn, and ill, consulted me in November, 1882. I discovered a large cicatricial bridge, which joined together the buttocks, overlapping the anal orifice, and a long sinus-like tunnel extending beneath it with two openings—the one near the anus, and the other over the sacrum; these discharged a quantity of feculent pus, and the poor fellow had to wear napkins, and change them frequently. The band, which in the narrowest part measured seven inches in circumference, was the result of a scald in infancy, for a hard-handed nurse had dipped his buttocks in boiling water. The patient was put under ether, and the band cut in the middle line. The hæmorrhage was not great, and a complete recovery followed the operation. The tendency of the granulating surfaces to unite was prevented by introducing carbolised oiled lint to the bottom of the wound. The patient was driven to seek advice about some bladder irritation which was clearly reflex, and it was only in the course of a systematic investigation to find a cause for this that his real malady was discovered. There had been no troubles directly or indirectly connected with the cicatrix until the few months previously, and he had been advised by an eminent surgeon not to have it interfered with. The inflamed and suppurating condition described was brought on by boating, for, to my great surprise, I learned that he had been sculling nearly every day in spite of discomfort, failing strength, and loss of weight.

This appears to be a good example of the growth of a cicatrix; probably about the size at first of an infant's hand, it gradually enlarged with the body's growth until it attained the size of an adult's hand at manhood.

Cambridge.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

RADCLIFFE INFIRMARY, OXFORD.

A CASE OF ULCERATIVE ENDOCARDITIS IN A CHILD, AFFECTING THE PULMONARY VALVES, WITH CERTAIN CONGENITAL DEFECTS IN THE HEART; NECROPSY; REMARKS.

(Under the care of Dr. TUCKWELL.)

THE following case of ulcerative endocarditis will be read with considerable interest in connexion with the Gulstonian Lectures on Malignant Endocarditis recently delivered by Dr. Osler, and published in THE LANCET of March 7th, 14th, and 21st. It was apparently a primary disease of the pulmonary valves, and there appears to have been no disease on the left side of the heart; of the large number of cases collected by Dr. Osler, the disease appears to have been limited to these valves in only five. The age of the patient and the physical signs found on examination of the chest, in the absence of further symptoms of embolism, made the case one which it was almost impossible to diagnose correctly. For the following notes we are indebted to Dr. Harris, house-physician to the infirmary.

H. E——, a boy aged four years, was admitted to the Radcliffe Infirmary on Nov. 25th, 1884, and died on the 30th of that month. He was said to be suffering from "congestion of the lungs," and during the five days that he lived after admission he was so ill that no very detailed examination could be made. The father stated that the boy had always appeared to be the healthiest of his family of four; that he had had very little previous illness, but that in the previous month of May he had measles, from which he recovered, though not regaining quite his former robust state of health. He seemed fairly well till about three weeks before admission, since when he had kept his bed, suffering from loss of appetite, cough, and a hot flushed face. On the night of admission the child was very flushed; temperature 101°; pulse 180, and regular; respiration 54. What physical examination of the lungs could be made revealed nothing definite, but he was believed to be suffering from acute pneumonia.

On the following day (Nov. 26th) there was evidently a great change. The child, from being very flushed, was now very pale, with slight blueness of the lips and a small blue patch on each cheek. The temperature in the morning was 103°; in the evening 103·6°. Respiration in the morning 54; in the evening 66. Pulse in the morning was 130; in the evening over 180, but the exact rate could not be obtained. The child's general condition was very low, and very little examination was made, but there was thought to be a faint pleural friction sound at the base of one lung, and also at the cardiac apex a distinct though faint murmur, which was apparently systolic in rhythm, but from the rapidity of the heart's action it could not clearly be localised. On the next morning (the 27th) the temperature had fallen to 99°, but there was no corresponding improvement in the general condition of the child; the face still presented the peculiar pallor, with the slight blueness of lips and cheeks. In the evening of the same day the temperature was 103·2°, respiration 54, and pulse over 180. On the following morning (the 28th) the general condition was the same. Temperature 104°; pulse 162; respiration 54. In the evening the temperature was 102°; pulse 156; respiration 54.

The next morning (the 29th) showed a fall of temperature to 101·4°; respiration 58; pulse 158. The child since admission had been always conscious, never delirious, but had taken very little notice of anything going on in the ward. On this day the systolic murmur was still audible, and there was evidence of some lesion at various parts of the lungs, but the child was far too ill to be moved much for an examination to be made. Behind, at the right apex, was marked tubular breathing; at the right base, dulness of slight extent, with no definitely abnormal auscultatory signs; over the left apex in front was some impaired resonance, but again no definitely abnormal signs on auscultation. The child had some cough, though it was not troublesome. It was only on this day that a history of the case could be obtained. In the evening the temperature rose to 102·6°; pulse 156; respiration 48.

On the morning of the 30th, the day on which he died, the temperature was 102·4°; respiration 54; pulse 158, regular. His general appearance was unchanged; there were still the pallor and blueness of the lips and cheeks, but in addition there were noted a distinct internal squint of the left eye and ptosis of the upper eyelid of the same side. Abdomen somewhat distended; no tache cérébrale. There was now marked dulness over the left infra-clavicular, left mammary, and axillary regions, with bronchial breathing over the infra-clavicular and marked tubular respiration at the axillary and lower scapular regions, also a doubtful friction sound over the lower part of the left infra-clavicular region. There had been diarrhœa since admission, the number of motions varying from two to five in the twenty-four hours, and these were of a green slimy character. His breathing became more and more oppressed, and he died about 7.30 P.M. The temperature just before death was 101·6°.

The post-mortem examination, which was made seventeen hours after death, revealed extensive ulcerative endocarditis affecting the orifice of the pulmonary artery, a patent foramen ovale, a communication between the right and left ventricles, and numerous pulmonary infarcts. The body was fairly well nourished, and for the age well developed. Post-mortem decomposition was not marked. Cutaneous hypostases dorsal. Pericardium and heart: The pericardium contained about six drachms of turbid effusion, which was not blood-stained. The visceral surface of the sac showed numerous small patches of quite recent lymph, and also here and there a few hæmorrhages the size of pin heads.

The pericarditis was evidently of quite recent date, and there were no adhesions between the visceral and parietal layers. The heart was considerably enlarged, weighing four ounces; the apex was formed entirely by the right ventricle. Muscular substance firm. Walls of both ventricles much thickened; the thickness of the right exceeding that of the left. The section of the right ventricular wall near the tricuspid orifice was from a quarter to three-eighths of an inch, while that of the left ventricle at a corresponding point was a quarter of an inch. (These measurements were not taken at the time of the post-mortem, but after some days' immersion in alcohol.) All the cavities contained some dark blood, partly fluid, partly in dark coagula, the right side considerably more than the left. On removing the heart, the pulmonary artery was seen to be completely blocked by a very firm thrombus, which was markedly adherent to the walls of the vessel, and was of yellowish-grey colour throughout. On section no portion of this thrombus appeared dark, and no portion of it was softened; it could not be readily separated from the arterial wall; when torn away it left visible an extensive ragged irregular ulcer, which extended from the origin of the pulmonary artery upwards a distance of an inch and a quarter into the vessel, and was not limited to one side of the artery, but extended all round the vessel. No trace of the semilunar valves could be seen, but they appeared to have been completely destroyed in the ulcerating process. Although the ulcer was so large, it had not extended deeply into the walls of the vessel, nor had it at any point nearly perforated the arterial wall. The tricuspid orifice admitted the tips of two fingers, and the cusps of this valve were perfectly healthy, though the ulcer in the pulmonary artery extended as far as the base of attachment of one cusp. The endocardium of the right auricle and ventricle was healthy. The foramen ovale was patent, and would admit the passing of a No. 12 English catheter; but the communication between the two auricles was not direct, for a fold of endocardium from the margin of the fossa ovalis lay loosely over the aperture, and, acting probably as a valve, prevented the passage of blood from the right to the left cavity. At the upper part of the septum ventriculorum was a circular opening, fully one-eighth of an inch in diameter, forming a communication between the two ventricles. This opening was situated immediately below the ulcerated surface in the pulmonary artery, scarcely one-tenth of an inch of healthy endocardium intervening between them; yet the ulcerating process had had nothing to do with the formation of this opening, for the latter had perfectly smooth rounded margins, covered by an apparently healthy endocardium, and was evidently of congenital origin, forming a direct communication between the two ventricles. The mitral orifice admitted the points of two fingers, but less readily than the tricuspid; its valve was perfectly healthy. The aortic valves and the aorta itself were normal. Pleuræ and lungs: Both pleuræ contained a small amount of clear serous fluid, and showed, especially on their diaphragmatic surface, several minute punctiform hæmorrhages. The upper and lower lobes of the left lung were united together by recent lymph. Lungs: Both lungs contained numerous recent infarcts. The largest of these was in the upper lobe of the left lung, which was quite solid, except at the very apex, and dark-red in colour. One or two smaller infarcts existed in the lower lobe of the left lung; one of these being on section grey, though firm, and appearing to be the oldest present, for all the others were of dark-red colour, and none were softened. In the right lung the infarcts were more numerous but smaller, and chiefly, though not entirely, situated in the lowermost lobe; none were softened even in their centre. The spleen weighed three ounces, was firm, and presented no recent infarcts, but at one part on the surface was a large, white, starred cicatrix, such as is often seen as the result of an old infarct. The liver and kidneys were healthy; in the latter the fœtal lobes were very distinct. Peritoneum: No hæmorrhages could be found. Stomach and intestines: The mucous membrane of the stomach appeared pale, but otherwise healthy. The small intestines contained a large amount of partially digested milk; their mucous membrane was pale. Peyer's patches and the solitary glands were remarkably distinct throughout their whole length; but they were pale and not surrounded by any hyperæmic zone, and, though they were so distinct, were only just raised above the general mucous surface. There was no ulceration at any part of the intestines. The large intestines were normal. The mesenteric glands were somewhat enlarged, pink in colour, and firm in consistence. The brain and its membranes were carefully examined, but nothing abnormal was found. Special examination was made for any lesion which would account for the symptoms referable to the left eye observed during life.

Remarks by Dr. HARRIS.—Cases of ulcerative endocarditis are sufficiently rare, and present frequently so many difficulties in diagnosis that it has been considered worth while to record the above case. From the clinical features presented in the majority of cases it has been found convenient to group them under two heads and to speak of a pyæmic and of a typhoid variety of the disease. The above case could not be placed in either of these groups; it never for a moment suggested a resemblance either to pyæmia or to enteric fever; it presented special characters of its own, and these characters were due to the unusual position of the lesion. On admission, the child was believed to be probably suffering from acute pneumonia, and it was not until the following day, when its appearance became so much altered and the history of the case was obtained, that it became evident that, although pneumonia might be present, it was not sufficient to explain all the symptoms and that there must be some other lesion as well. The cardiac murmur, though distinct and believed to be systolic in rhythm, was never a loud one, and the frequency of the heart-beats was so great that we could not be certain as to the rhythm of the murmur or as to the importance to be attached to its presence. The squint and the ptosis observed during the last day of the child's life inclined us to the diagnosis of acute tuberculosis; but there were still wanting other confirmatory symptoms of tubercular meningitis. Pathologically, the case was interesting from many points of view. Ulcerative endocarditis affects far more commonly the left than the right side of the heart, and the age of our patient was far younger than that at which the disease is usually seen. Why should the lesion in this instance have affected the pulmonary artery, which is so rarely the seat of any acute disease? It has been observed that very many of the cases of ulcerative endocarditis occur in hearts which have previously been the seat of some chronic valvular mischief, the acute disease being as it were superimposed upon the already diseased endocardium. In our own case no trace of the pulmonary valves could be seen, and so they must either have never existed, or, as is quite possible, have been destroyed in the ulcerating process. Congenital defect of the pulmonary artery is among the more common forms of the congenital lesions affecting the circulatory system, and is very frequently associated with some other congenital cardiac defect, such as open foramen ovale, or a communication between the two ventricles, both of which lesions existed in the above case. Another point which seemed to speak strongly in favour of there being some lesion of the pulmonary artery of long standing was the large amount of hypertrophy of the right ventricle which was present, without any other cause to account for this, for it could hardly be assumed that so much hypertrophy had been called forth in consequence of the acute endocarditis, nor from the effect which the small aperture in the septum between the ventricles might have, and there was no lesion of the tricuspid valve. Hence we believe that primarily there was some congenital lesion of the pulmonary artery causing compensatory hypertrophy of the right ventricle, and that ulcerative endocarditis subsequently attacked this defective part of the circulatory system. The size of the ulceration was exceedingly large, especially when we consider the importance of the part it affected. As regards the infarcts in the lungs, one point seems specially worthy of notice—that is, that none were softened, which so commonly ensues in the infarcts which are caused by emboli from this destructive form of endocarditis. This absence of softening can hardly be accounted for by the infarcts being of recent date; for certainly the disease must have existed for some length of time, and have been in a position, so far as extent of lesion was concerned, to give rise to emboli, which, if they had possessed their usual irritative properties, would certainly have been followed by the usual softening. That the lungs were the only organs where infarcts existed is of course explained by the position of the original lesion. Although no brain lesion was found, it seems highly probable that the ptosis and squint were the result of a small embolus. The lobed condition of the kidneys is interesting when we consider that there also existed certain congenital heart defects.

LEEDS GENERAL INFIRMARY.

TWO CASES OF FRACTURE OF THE ASTRAGALUS, AND A CASE OF SEPARATION OF THE UPPER EPIPHYSIS OF THE RADIUS; REMARKS.[1]

(Under the care of Mr. A. W. MAYO ROBSON.)

CASE 1.—G. C——, fitter, aged forty-eight, fell from a ladder, a height of eight or nine feet, alighting on his feet. On admission he was found to have a fracture of the left fibula, about the junction of the lower and middle third, with some injury to the foot. On flexing the joint crepitus could be felt indistinctly. On further examination a prominence of bone could be felt in front of the ankle-joint, between the malleoli. The width of the malleoli, measured by calipers, was increased by a quarter of an inch as compared with the sound side. A line drawn from the posterior part of the internal malleolus to the tip of the heel was a third of an inch less on the injured foot. The distance from the tip of the external malleolus to the floor was decreased by half an inch, and the circumference over the malleoli was increased by an inch and a half. He was in the hospital with the leg on a back splint from Aug. 13th to Sept. 6th, when he was discharged with a plaster-of-Paris splint on. When he appeared as an out-patient on Oct. 24th the movement of the affected ankle-joint was good, limited extension being the chief fault. There were still increased circumference of the ankle, and diminution of the distance between the malleoli and the sole.

CASE 2.—G. H——, quarryman, aged thirty, fell from a plank distant some twelve feet from the ground, injuring the left foot. On admission, Oct. 9th, 1884, there were swelling of the foot and ankle, greatly impaired movement, and some deformity. On flexing the foot to a right angle and pressing upwards crepitus could be felt. The whole foot appeared to be a little displaced forwards, so that the heel of the injured side was slightly in advance of that of the sound side. The distance from the tip of the external malleolus to the floor was lessened half an inch, and a line drawn from the tip of the inner malleolus to the prominence of the heel was lessened by a quarter of an inch on the injured side. The circumference of the ankle was increased, and calipers showed the malleoli to be separated about one-third of an inch. He was treated on a back splint, the foot being brought into as good a position as possible. After three weeks plaster-of-Paris was applied, and he was made an out-patient. Two months afterwards there was fair movement in the ankle, but the increased circumference and diminished distance between the malleoli and the sole remained.

CASE 3.—A boy aged six was brought to the infirmary, the parents stating that they had noticed impaired movement in the arm during the last four months, but on closer inquiry it was elicited that he had been run over by a cart four years before, and had been at the time treated for a bruise of the arm. On admission he complained of no pain, could flex, extend, and pronate the forearm completely, but could not supinate more than to place the hand in a line vertical to the floor. The ulna could be traced along its whole length, and the olecranon bore a proper relation to the condyles, which were normal. The head of the radius was in position, but immediately below it was a hollow. The radius could be traced obliquely across the front of the forearm from below upwards and inwards, ending in a hard bossy mass, apparently callus, in front of and below the internal condyle of the humerus, where it rotated in its new position. It was diagnosed from dislocation of the head of the radius forwards by the detached head being felt in its normal position, and by the ability to completely flex the forearm. As the arm was very useful, and had apparently accommodated itself to the new condition, no treatment was recommended.

Remarks by Mr. ROBSON.—The points of interest are:—(1) The occurrence, in the practice of one surgeon, of two cases within a short time of what is usually stated to be a rare accident; but, as Mr. Bryant remarks: "Fracture of the astragalus is probably more common than is usually thought, the injury, which is difficult to diagnose, being often overlooked." (2) The termination: a useful limb resulting in both cases. (3) The signs aiding in the diagnosis being—(*a*) Presence of crepitus on forcible flexion of foot; (*b*) absence of fracture of other bones of tarsus; (*c*) lessening of distance between the tips of the malleoli and the sole of the foot; (*d*) increased circumference of ankle; and (*e*) very slight separation of malleoli. The radial case is interesting on account of its extreme rarity, and as an illustration of what can be accomplished by unaided nature.

[1] Read before a meeting of the Yorkshire Branch of the British Medical Association, Feb. 28th, 1885.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Aneurysm of Splenic Artery rupturing into Stomach.—Congenital Deformity.—Osteitis Deformans.—Synovial Cysts in connexion with Joint Disease.—Primary Sarcoma of Penis.—Dislocated Hip.—Fatal Hæmoptysis from Hydatid of Lung.

AN ordinary meeting of this Society was held on Tuesday last, Dr. J. S. Bristowe, F.R.S., President, in the chair. The number of specimens shown was very large.

The report of the special subcommittee appointed to inquire into the true nature of Mr. Lane's specimens of fracture of the hyoid bone and larynx was signed by Mr. Lane, Mr. Shattock, Dr. F. Semon, and Mr. Butlin. The report showed that the subcommittee agreed almost entirely with the conclusions drawn from the specimens by Mr. Lane. The reporters stated that it was clear that fractures of the hyoid bone and thyroid cartilage were much more frequent than had usually been supposed. The most interesting specimen shown by Mr. Lane they considered to be that of fracture of the cricoid cartilage, for this form of fracture had been regarded as almost invariably fatal; Mr. Lane's specimen showed that such a severe injury may be recovered from; there was considerable displacement of the fragments and no doubt considerable violence must have been used. The absence of the clinical history of these cases was to be regretted, but under the circumstances this defect could not be helped.

Dr. S. WEST exhibited a specimen of Aneurysm of the Splenic Artery Rupturing through the Stomach. It was taken from a male subject aged fifty-six, who had suffered from hæmatemesis and was given to drink. He had had a similar attack of hæmatemesis fourteen years previously. He suffered from great pain and flatulence with looseness of the bowels. When he was admitted on January 18th, 1885, he was weak and faint and passed much blood in the motions, which were long afterwards of a tarry aspect. The patient was anæmic; there was slight enlargement of the liver and some tenderness of abdomen. On January 28th a pint of bright blood was vomited and in half an hour the patient died. The stomach was found at the autopsy to be full of blood; there was an ulcer one inch in length, and situated midway between the œsophagus and pylorus. An aneurysm of one of the chief branches of the splenic artery was found to be adherent to the stomach on the one hand, and on the other to the pancreas; there was much chronic inflammatory tissue around the aneurysm. A prominence projected through the base of the ulcer in the stomach. There were two slight losses of substance at other parts of the stomach, which were of old date. The liver and kidneys were cirrhotic; the pleuræ were adherent. The disease was rare, and there had been but two cases recorded in the Society's Transactions. One was recorded by Dr. Pearson Irvine, in which the aneurysm was situate on the hepatic artery. The other case was reported by Dr. Powell, and in it the coronary artery was the seat of the aneurysm; both these authors likened the occurrence of their specimens to the aneurysms found in chronic cavities of the lungs. Last year Dr. Carrington had recorded a somewhat similar case. The great pain which preceded the hæmorrhage was a noteworthy clinical feature.—Dr. BARLOW said that he had recently seen a specimen at University College Hospital which corresponded almost exactly with the one Dr. West had described. He was not aware that these cases were very rare, or he should have shown his specimen. There was a large ulcer measuring three inches in diameter, and the pancreas formed part of the base of the ulcer, into which a pea-sized aneurysm projected.—Dr. NORMAN MOORE thought aneurysmal dilatations of the pancreatico-duodenal artery

were not uncommon, and that they were the rule in cases of hæmatemesis due to gastric ulcer.

Mr. TREVES read a paper on a case of Congenital Deformity, which he had exhibited at a previous meeting of the Society. The case was that of a man aged twenty-four, who was publicly exhibited as the "elephant" man. The skin and the bones were chiefly affected. The disease of the skin was of a twofold character, and consisted of an increase in the subcutaneous cellular tissue, which hung in heavy folds from different parts of the body, and in the more dependent places became quite pendulous; these folds were to be seen in the right pectoral region and on the buttocks, where they were so dependent that they reached the middle of the thigh and interfered with the act of defecation. The whole of the back and the entire extent of one upper limb was involved in the disease. The second character of the cutaneous affection was the presence of congenital papillomatous tumours situate on the hypertrophied cellular tissue. With the exception that the papillomata were larger than usual there was nothing special about them; some of the tumours were as large as the top of the forefinger, and the head was the only part of the diseased area which did not possess these papillomata. The head was greatly enlarged, and its circumference was almost equal to that of the waist. Large exostoses on the skull gave it an outline so irregular that its shape was almost indescribable. The right superior maxillary bone was affected in the same way, and from the front of this bone there projected a large fibrous mass, which the patient spoke of as his trunk; the nose was completely turned round to the left. The bones of the right upper limb were greatly hypertrophied, and the limb was three or four times as large as the left. The bones of the feet were enlarged in the same way. The patient averred that the affection was congenital, and that the size of the affected parts held the same relation to the rest of his body in his childhood as they did now.—Dr. RADCLIFFE CROCKER said that the case belonged to that class which had been described as dermatolysis and pachydermatocele. A specimen somewhat similar had been reported by the late Dr. Tilbury Fox; in this instance the buttocks were the seat of a large hypertrophy, and hung down in three or four flounces as low as the hams. The additional interest of the exostoses in Mr. Treves's case was referred to. He (Dr. Crocker) looked on the tumours as of the nature of molluscum fibrosum. It was probable that the nervous system governed the distribution of this disease. Dr. Tilbury Fox's case appeared to have originated from an injury which caused an abscess, after the opening of which the disease developed.

Dr. SILCOCK exhibited specimens from a case of Osteitis Deformans, which were taken from a woman aged eighty-two, who was admitted into St. Mary's Hospital for strangulated hernia, which was reduced by Mr. Pepper. There was no obvious enlargement of the facial bones, but the forehead was very prominent. The femora were curved slightly, with the convexity outwards and forwards. The tibiæ were curved forwards in their upper two-thirds, and both these bones appeared to be much thickened. The right tibia was much thickened in its upper half, due to an increase of the compact tissue. The medullary tissue was encroached upon by the compact tissues to a greater extent anteriorly than posteriorly. At the summit of the curve anteriorly, the compact tissue was more porous than elsewhere; no new growth was detected anywhere. The periosteum was perhaps a little more adherent than natural. The cranial sutures were obliterated from ossification; the pericranium was not abnormally adherent. The bone was smooth and mottled by areas of congestion, and grooved by vessels here and there. The right frontal and parietal eminences were greatly thickened. The frontal bone in the mid-line was one inch and a quarter in thickness just above the superciliary ridges. The squama of the temporal bones were one-third of an inch in thickness on the right side, and a quarter on the left. The mid-line was half an inch in thickness one inch above the parieto-occipital suture. The distinction between the internal and external tables and the diploë was lost, but the centre of the frontal bone was pale and porous, and could be indented by the thumb-nail. Some areas of reddish, soft, medullary tissue were found irregularly distributed in bone which was more porous than the rest. The grooves of the vessels were irregularly deepened. The bones of the base of the skull were not involved in any marked degree. The dura mater was much coarser in structure than natural. The spine was curved abnormally, but the bones were not obviously diseased. The other organs showed no abnormal changes worthy of note. The specimens closely corresponded with those described by Sir James Paget in the fifty-seventh volume of the Medical and Chirurgical Transactions; and Dr. Silcock agreed with Mr. Butlin's interpretation of the pathological appearances, but referred more specially to the great vascularity of the parts, and to the imperfect structure of the new bone which had been thrown out. The chronic inflammatory nature of the osseous disease had also been supported in a paper contributed to the St. Thomas's Hospital Reports by Mr. Lunn, who maintained that osteitis deformans was a constitutional disease, producing atrophy and absorption of a large part of the osseous system, with consequent weakening of the bones, so that they yield when exposed to strain. The compensatory formation of bone might be looked upon as an ill-developed callus. In this case no tumour was found. The right tibia was the most markedly affected. He also showed the bones removed from a child aged thirteen, in which both tibiæ were affected much in the same way as in a case of osteitis deformans. In the child the disease was the result of congenital syphilis. As proving the antiquity of the disease, he showed specimens taken from a sepulchre.—Dr. GOODHART showed recent specimens from a case of osteitis deformans. The patient had died of bronchitis. There was no evidence of tumour in this case, if we except a fibroid tumour of the uterus. The head was the first and chiefly affected; the lower jaw was also the seat of enlargement. The other bones were really affected, though this was not determinable during life. After removal the bones were very heavy, though their shape was unaltered. The spinal column was not affected with marked changes, but a gradual yielding of the spine had led to diminution of the stature of the patient.—Mr. STEPHEN PAGET gave some further details of the cases recorded by Sir James Paget in the sixty-fifth volume of the Medical and Chirurgical Transactions. He had examined the tibia of the case of an old gentleman; the clavicle was also affected; the changes were of a typical kind. Of two cases he had recently seen one had a soft molluscous tumour, and the other a pigmented tumour in the right groin. In one specimen which he had examined the amount of rarefaction that had taken place was remarkable, and the porous bone was filled with soft gelatinous granulation tissue, and this alteration made the bone so crumbling and coarse that it was impossible to trephine a portion. This kind of change proved that no theory of compensatory hypertrophy or outgrowth could possibly account for the state of the skull, which was unquestionably the result of a chronic inflammatory process.—Mr. H. T. BUTLIN said that he had examined some skulls in the South Kensington Natural History Museum, and the Neander-thal skull to be seen there appeared to him to be a specimen of a diseased condition, and he believed that it was an example of that *modern* disease which had developed within the last few decades! The great development of the superciliary ridges was a notable feature, and in Dr. Silcock's case these ridges were greatly hypertrophied. The deep depressions for the Pacchionian bodies and vessels also bore out his contention. The thigh bones were curved and thickened. Everything considered, he thought that osteitis deformans was the same disease as that which gave rise to the peculiar Neander-thal skull.—Mr. B. SUTTON said that Schaffhausen had concluded that the Neander-thal skull was a rachitic one, though Professor Huxley opposed that view. He was of opinion that Mr. Butlin was correct in his views on the subject.—Mr. EVE said that he had examined the tibia of one of Sir James Paget's cases. The medulla was almost diffluent, and was of a bright-red colour; there was a great abundance of young cell elements and a great amount of brown pigment; these were evidence of a sub-inflammatory process. He had observed also fibrous degeneration of the cartilage, which he believed was the expression of a diathetic condition, and of frequent occurrence in osteitis deformans.—Mr. BOWLBY said that in some specimens he had examined there was a growth of new bone, as was to be well seen in the femur of a man who had suffered from osteitis deformans; the head of the bone showed changes like those of rheumatoid arthritis. He had observed the hypertrophy of the superciliary ridges of a woman aged sixty-two, in whom the body had become shorter.—Dr. CARRINGTON could hardly admit that there were any signs of rarefaction of the bone in the specimen shown by Dr.

Goodhart. The condition which Sir James Paget described could not be harmonised with that of the bones which he had recently moved from the body of a woman at Guy's Hospital.—Mr. EVE explained that there was rarefaction of the bone in the neighbourhood of the medulla in the specimen he had examined.

Mr. D'ARCY POWER read a paper on Synovial Cysts in connexion with Joint Disease. The first specimen described was that of the left knee of a man aged forty-four, who came under observation in March, 1884; a swelling existed in the calf and some glairy fluid tinged with blood was withdrawn by a syringe. There was a direct communication between the cavity of the joint and the synovial cyst. A hernia of the synovial membrane also projected from the back of the capsule of the joint. The left knee of a girl aged twenty-two was also shown; in this case there had existed a swelling in the calf of six weeks' duration; the joint was disorganised; on its posterior aspect two openings were visible and the cyst was in communication with the joint. The bursa under the semi-membranosus was the probable origin of this cyst. A cast from a case of rheumatoid arthritis was shown in which a rounded swelling was present in the calf, and was found to be an enlarged synovial cyst. Another cast was shown. The question as to whether the cysts were the result or the cause of the joint disease was discussed. M. Fouchet and Mr. Baker had written on this subject. Injection of iodine into the cyst sometimes led to a transient synovitis, and at other times more serious mischief resulted. The origin of these synovial cysts was discussed. The escape of synovial fluid into the tissues under the tendon of the popliteus was a possible mode of origin, and normally a bursa had been described there by Mr. Holden. In cases of joint disease it was reasonable to suppose that an increase in the quantity of the synovial fluid might lead to a pouching which would be directed by the popliteus muscle towards the calf; but this was not always the mode of origin of these cysts, for they sometimes originated by an enlargement of the bursa under the semi-membranosus, which bursa occasionally communicates with the joint. In only one case was the cyst found in connexion with osteo-arthritis.

Mr. STEPHEN PAGET showed a living specimen of large synovial cyst in association with disease of the hip-joint. The case was that of a man, who began in 1874 to suffer pain with a stiff knee. The left hip was stiff, as was also the knee. A fulness and sensation of fluctuation were found in the upper part of the thigh below Poupart's ligament. Extension by a weight of 10lb. was the treatment first adopted. Later on the stiffness of the hip and knee increased, and the thigh became everted, and the limb shortened three-quarters of an inch. A large hemispherical swelling measuring seven and a half inches from above downwards by seven inches across existed below Poupart's ligament, from which forty-two ounces of oily yellow alkaline fluid, having a specific gravity of 1028, and full of fat and cholesterine, were withdrawn. Again, in 1884, forty ounces of fluid resulted from a fresh tapping. The pains and stiffness had increased. The pupils and knee-jerks were normal. He suggested that the bursa under the psoas might have been the seat of cystic dilatation, but the fluid was not of bursal origin. The man had been in the habit of drinking large quantities of synovial fluid obtained from the butcher's.—Mr. M. BAKER referred to his paper published in the St. Bartholomew's Hospital Reports. He had since seen three cases in connexion with the elbow, and one with the shoulder-joint, besides several about the hip-joint. The clinical and pathological importance of these cases was great. Such collections of synovial fluid might, when tapped, lead to inflammation and suppuration in the associated joints, and thus indirectly to amputation.—Mr. EVE spoke of a case in which a cyst under the gastrocnemius was unconnected with the knee-joint. He alluded to the specimen of a knee-joint of a horse in which a cul-de-sac projected into the sheath of the tendon. Verneuil had described similar conditions.—Mr. M. SHEILD said that the tapping of such synovial cysts was not devoid of risk. He briefly referred to a case in which many large cysts were in connexion with a diseased joint, and after the introduction of a grooved needle the joint became the seat of destructive inflammation and death ensued. About the wrist-joint such cysts also occurred. "Ganglionic disease of joints" was the phrase applied to such cases. He narrated briefly the case of an aged man in whom this affection existed; diffuse suppuration in the forearm resulted from tapping the cysts. In view of the serious consequences which followed puncture, he thought amputation ought to precede puncture of the cysts.

Mr. BATTLE showed a specimen of Primary Sarcoma of the Penis. The patient was first seen in 1883; he was sixty years of age. The penis had undergone a gradual enlargement without giving rise to pain; some slight attacks of hæmorrhage were the only noteworthy signs. The end of the organ was enlarged, and presented a dark-coloured and spongy appearance. There was no enlargement of the inguinal glands, no albuminuria, and no enlargement of the liver. On Nov. 26th Mr. Battle amputated the penis close to the pubes; some transient retention of urine followed, but no inflammatory swelling disturbed the course of the case. The patient left the hospital, but died forty-three days after the operation. The final symptoms were thirst, jaundice, and hiccough, with the signs of exhaustion. On section the tumour presented a smooth and elastic appearance, whilst its free surface was shaggy and fungating; there was no trace of the glans; the structure of the corpora cavernosa seemed natural. Microscopically, cells of various kinds, of which the majority were round cells, were seen. The round cells had well-marked nuclei, and in places there was a tendency to alveolar grouping; some of the cells appeared to be of inflammatory origin. The case was an example of a rare disease, and he knew of but two other cases; one recorded by Mr. T. Holmes, of a melanotic sarcoma of the penis, and the other mentioned in Gross's "System of Surgery," in which death followed removal of the penis. Mr. Golding Bird had mentioned to him a case of melanotic growth of the penis.—Mr. GOLDING BIRD said that his case occurred four years ago. There were two lumps on the penis, one was dark coloured, and resembled a chancre. The growth was of the spindle-celled variety; there were no secondary deposits; the penis was amputated, and the patient did well.—Dr. SEYMOUR SHARKEY had seen one specimen of mixed-celled sarcoma of the penis, which had been mistaken by the surgeons for epithelioma.

Mr. STEPHEN PAGET showed a specimen of Dislocated Hip. It was prepared from a cabman aged sixty-eight, who received a severe injury from a cart-wheel. The limb was flexed, adducted, and rotated in; the head of the bone was not clearly made out during life. The man was intemperate, and died from severe bronchitis. The bone was replaced by manipulative movements. Acute diarrhœa set in three days after the operation. Death ensued eight days after the injury, from exhaustion. The internal viscera were decidedly diseased; there was much pigmentation of the intestines, which could be traced in between the muscular fibres. At the autopsy much bruising of the fascia lata was seen, and the head of the bone was below the obturator internus and gemelli, which had been slightly torn; the quadratus femoris was torn across; the sciatic nerve looked as if it had been stretched; the obturator externus was uninjured; the rent in the back of the capsule was very large. Mr. Paget thought the dislocation was the result of direct violence.—Mr. CHARTERS SYMONDS said it was possible for the backward dislocation to have occurred when the man fell rather than as the effect of direct violence.—Mr. BOWLBY said that the cotyloid ligament was torn off immediately behind, and it was obvious that the dislocation had resulted from direct force; attempts to dislocate by abduction showed that the head of the bone could not be brought into correspondence with the rent in the capsule by this means.—Mr. EVE said that the rent was below the obturator internus, and he thought that the dislocation had first taken place directly backwards, and afterwards the bone had slipped upwards.—Mr. PAGET, in reply, urged that in attempts at abduction the head of the bone went right away from the rent in the capsule, and so the dislocation could hardly have been caused after the usual method.

Dr. PERCY KIDD ready a paper on a case of Fatal Hæmoptysis from Hydatid of the Lung. The patient was a female aged forty-two, admitted into Brompton Hospital on August 25th, 1884, under the care of Dr. Tatham. There was a history of jaundice fifteen years before. A year ago the patient had suffered from "inflammation of the left side of the chest." For the last two months she had complained of pains in the chest, cough, slight expectoration, occasional hæmoptysis and wasting. There was a blue line on the gums. There were signs of consolidation at the apex of the left lung, without râles. The temperature rose for a day or two. The chief symptom was persistent hæmoptysis. The total amount of blood brought up was large, though there was never

very free hæmorrhage. Three months after admission there was absolute dulness, with almost complete absence of breath sounds over the upper part of the left lung, and some crackling râles were heard over the same area. There was no bulging of the chest. On Dec. 20th she suddenly coughed up a large piece of membrane, and a few minutes later brought up two large saucer-shaped clots. Shortly afterwards there was considerable hæmoptysis, and the patient died. No clear fluid or daughter cysts were coughed up at any time. At the autopsy the upper lobe of the left lung and the upper margin of the lower lobe were in a state of pinkish-grey fibroid induration. There was a single cavity on the upper lobe as large as a duck's egg, with thin tough walls, which were somewhat shreddy and infiltrated with blood. The cavity contained no blood or fluid of any kind, and no hydatid membrane. Two large bronchi led directly into the cavity, and showed some superficial ulceration at their entrance into the cavity. The lower part of the lung was healthy. There was a small fibroid patch at the right apex, and some spots of inhaled blood at the base of the lung. The liver weighed 3 lb. 10 oz.; it was smooth on the surface and of soft consistence; irregular fibroid tracts pervaded it, corresponding to the distribution of the large bile-ducts, which were dilated. There was an old hydatid cyst on the under surface of the right lobe, pressing slightly upon the hepatic duct, which was greatly thickened but only slightly obstructed. The gall-bladder was healthy. The stomach was filled with blood, but healthy. The membrane that was expectorated was typically laminated, and its inner surface was lined with large highly granular cells. No daughter cysts or hooklets could be discovered. The fatal hæmoptysis evidently resulted from separation of the cyst from the surrounding lung tissue. It seems probable that bleeding from the cavity wall determined partial detachment of the cyst in the first instance, and it was owing to the accumulation of blood between the hydatid membrane and the cavity wall that complete separation and expectoration of the cyst were effected subsequently by coughing, with fatal hæmoptysis as the result. The present case in some respects resembles one which Dr. Curnow had recorded in the thirty-fourth volume of the Society's Transactions.

The following card specimens were shown:—Mr. Bruce Clark: Unilateral Development of Warty Growths. Dr. F. C. Turner: (1) Circumscribed Superficial Slough of Stomach; (2) Renal Growth invading the Vena Cava. Dr. Chaffey: Tubercular Pyo-salpinx in a child aged four. Mr. D'Arcy Power: Intermuscular Cyst in connexion with Shoulder Joint. Dr. Sharkey: Ulcerative Endocarditis with Embolism of the Left Middle Cerebral Artery, Left Vertebral Artery, Spleen, and Kidney (recent specimen). Dr. G. N. Pitts: Colitis Polyposa, due to Chronic Dysentery and Polypus connected with Meckel's Diverticulum. Mr. Battle: Rupture of Small Intestine (recent). Mr. M. Sheild: Cancer of Stomach.

CLINICAL SOCIETY OF LONDON.

Thrombosis of Basilar Artery.—Insanity after Ovariotomy.—Colotomy with Delayed Opening of the Bowel.

AN ordinary meeting of this Society was held on the 13th inst., Mr. Thomas Bryant, F.R.C.S., President, in the chair.

Dr. CHARLTON BASTIAN read a paper on a case of Thrombosis of the Basilar Artery, with profound coma, extreme lowering of rectal temperature, and death in five hours and a half. A fairly healthy man aged forty-three, having had no previous brain symptoms, was found insensible shortly after the onset of an apoplectic attack, and admitted under his care at University College Hospital at 6 P.M. on Nov. 16th, 1884, in less than one hour. The patient was then profoundly comatose; the breathing was irregular and slightly stertorous; the face was pale, cold, and clammy; all the limbs were flaccid; the pupils were equal and somewhat contracted; there was no conjugate deviation of the eyes; all the reflexes were abolished. There was no cardiac bruit; the heart's action was tumultuous. The rectal temperature at 6.10 P.M. was 98°; at 6.20 P.M. 97°. At 7 P.M. the pulse was 80, fairly full, but irregular in force. The respiration was very irregular—a few rapid breaths, then a pause, followed by a long deep expiration. The rectal temperature was 96·2°. At 7.50 P.M. the rectal temperature was below 95°; the pulse and respiration were nearly as before. The pupils were of the medium size, and quite insensitive to light. At 8.45 P.M. the pulse was 100; the respiration was 17 per minute. At 10.15 P.M. the rectal temperature was still below 95°; the pulse could only be felt with difficulty; it was irregular and at times imperceptible. At 10.45 P.M. death occurred, the rectal temperature having remained below 95° to the end. At the autopsy the basilar artery, in its posterior half, was found to be dilated into a small fusiform aneurysm with thickened walls, and this, together with the middle cerebellar arteries which came off from it, were found to be completely occluded by a soft colourless clot. Other large vessels were pervious and only slightly diseased. The lateral ventricles contained a slight excess of serum, and the veins on their walls were all distended. No lesions were found in any part of the brain. There was no appreciable diminution in the consistence of the pons. The heart was healthy, containing no clots, and no notable disease of the valves—merely some slight thickening. The thoracic aorta showed many raised whitish patches. The lungs were congested and œdematous, and showed hæmorrhagic extravasations into both lower lobes. The other organs were congested and notably tougher than natural. Dr. Bastian pointed out that it was extremely rare for death to take place in less than twelve hours in cases of occlusion of one or other of the cerebral vessels. He had been unable to find any case on record in which it occurred so rapidly as in this instance. In the cases of thrombosis of the basilar artery recorded by Hayem in 1868 death did not take place in less than from sixteen to twenty-one hours. The clinical history of the present case resembles in the closest manner what might be found in a case of large cerebral hæmorrhage. This is seen especially by the great depression of the rectal temperature, which in about two hours and a half from the onset of the attack had sunk below 95°. Last year he had brought before the Society the record of a case of cerebral hæmorrhage in which the temperature in the rectum sank to 94·5°, and where, as in the present case, it continued thus depressed till death occurred three hours afterwards. The fact that thrombosis had occurred in the lower half of the basilar artery, and thus cut off or greatly diminished the supply of blood to the respiratory centre, doubtless accounted for the suddenness with which the fatal issue was brought about. The centres for the third nerve, which are situated at the back of the anterior half of the pons Varolii, seem to have been partially paralysed rather than stimulated. Hence there was not the very contracted condition of pupils which often exists with hæmorrhage into the pons, and has caused such cases to be mistaken at times for instances of opium poisoning. The clinical features presented by thrombosis of the basilar artery vary greatly in different cases, according as the upper or the lower half of the vessel becomes blocked, and also according to the rapidity or slowness with which complete occlusion occurs. The present case afforded a further illustration of the extreme difficulty, or even impossibility, in some cases, of making a positive diagnosis between cerebral hæmorrhage and thrombotic occlusion of some large cerebral artery. Still, in no other artery except the basilar would such occlusion be at all likely to reduce the temperature to such a degree as in the present case. Bourneville never found the rectal temperature reduced below 98° in cases of incipient softening due to occlusion of other vessels. Lesions in the pons Varolii are altogether exceptional in the remarkable amount of variation which they may cause in the general temperature of the body. In the present case we have an incipient softening, or the conditions leading to such a lesion, depressing the temperature below 95° for some hours, whilst in the terminal stage of softening of the pons, as Dr. Bastian had observed, the temperature might rise as high as 110°.—Dr. HALE WHITE said that the case had some bearing on the question of the existence in the cerebrum of inhibitory centres controlling the formation of heat in the body. Physiologists had located this heat centre somewhere about the fissure of Rolando on each side. In cases of lesions of the pons the temperature varied; he had found that in four-fifths of the cases the temperature was lowered; though these examples tended to oppose the view advocated, yet they might be brought into harmony with other facts. The lesion in Dr. Bastian's case was undoubtedly severe, and shock may fairly be credited with the causation of the lowering of the temperature. Bourneville found that the premonitory fall was greatest in those cases where the hæmorrhage was most extensive.—Dr. MARKHAM SKERRITT narrated the

case of a female servant aged twenty-six who was supposed to be suffering from valvular disease of the heart and hysteria. The speech was rather thick when she was first seen; the pulse, respiration, and temperature were normal. The following day the patient was insensible. The temperature was 104°, sweating was profuse, and the surface of the body was dusky and pallid. There was no albuminuria and no sugar in the urine; a few hours later the temperature further rose to 106°, and the patient died in a state of profound coma with rapid fluttering pulse. At the autopsy the heart was found to be perfectly healthy; the basilar and arteries of the circle of Willis were found to be obstructed almost throughout their entire extent.—Dr. EWART suggested that the fall in temperature might be a secondary result of the fall in the number of respirations, and if so, the case could hardly be regarded as one tending to prove the existence of a heat centre.—Dr. BASTIAN, in reply, said that the fall in temperature was produced, he believed, after the manner of shock, and just as occurred in large cerebral hæmorrhages. The shock would be greater because such important parts were cut off from their blood-supply. In more chronic cases of disease of the pons the cutting off of some restraining influences might allow of the production of hyperpyrexia. The view referred to by Dr. Hale White seemed corroborated by a case of apoplexy which had been recently under his (Dr. Bastian's) care. The right hemisphere, was the seat of a hæmorrhage, which increased during the time the patient was under observation; there must have been some pressure within the skull, for there was considerable flattening of the convolutions, more especially on the right side and about the parietal convolution. At first, and as was usually the case in cerebral hæmorrhage, the temperature was found to be lower on the paralysed side of the body. Within eight hours of the onset of the apoplexy the temperature of the body, which had been very low, began to rise rapidly, and the temperature on the paralysed side then became higher than that on the side of the body which was not paralysed. It would be a question to be solved in future cases, but it must not be forgotten that the existence of heat centres about the fissure of Rolando had by no means been clearly established.

Mr. R. BARWELL read a paper on Insanity after Ovariotomy. At the latter end of last October Mr. Barwell removed the left ovary of an unmarried woman aged twenty-nine. The local results were perfect; but certain sequelæ ensued which have not hitherto been recorded. On questioning other surgeons, however, Mr. Barwell found the event not to be isolated, and notably that Dr. Keith, Mr. Thornton, Mr. Dent, and others had met with a like complication. The patient was of fair complexion and mobile temperament, and was admitted into Charing-cross Hospital under the care of Dr. Black. In his absence Dr. A. Routh had charge of the case, and, consulting with Mr. Barwell, it was agreed that ovariotomy should be performed. On Oct. 28th Mr. Barwell removed the left ovary, first withdrawing twenty-three pints of fluid; the pedicle was tied with silk, and allowed to fall back into the abdomen. The usual mode of suture was employed. During the three subsequent days menstruation recurred, and some hæmaturia was observed; it then ceased. On the third day the thermometer stood for two hours at 102·4°, but, with this exception, she never had any fever. The deep sutures were removed after forty-eight hours; the abdominal wound was healed on Nov. 2nd; there was hardly any tenderness in the left groin or elsewhere. The patient, who was naturally very docile and amenable, showed on Nov. 3rd a contradictory and irritable temper; on the 5th—that is, the eighth day after the operation—this had developed into insanity. She was so violent on the 7th that she had to be secured, and this could only be effected by giving chloroform. A subcutaneous injection of morphia (four minims) only calmed her for three hours. With various phases of comparative violence and calmness, but with incessant talking, the patient continued insane, sleeping only in short snatches about two hours out of the twenty-four until the 19th. She then began to show signs of amelioration, especially in saying that she knew she was mad. On the 21st Mr. Barwell ordered an ice-bag to the head, after this she slept more, and gradually improved; on the 28th she could be pronounced sane. During all December she was well enough to take walks, but was for various reasons kept under supervision till December 29th, when she was discharged in perfect mental and bodily health. In spite of several attacks of violence and of struggling, the abdominal cicatrix had held well, and there was no sign of hernia, nevertheless it was thought prudent to provide her with a belt. Several views can, of course, be taken of this case. 1. That there may have been hereditary tendency to insanity. 2. That insanity may follow any of the major operations, ovariotomy not more than any other. 3. That it was the result of disturbance of the urinary organs. 4. That it was the result of disturbance of the generative organs. 5. That it was mere coincidence. 1. Great pains were taken to find any trace of mental disturbance in the patient's family. None could be discovered. Her father died of cerebral apoplexy at an advanced age. 2. If insanity be an occasional sequela of surgical operations, the fact is not well known, nor is it mentioned in surgical writings. 3. The amount of blood lost by the kidney, if any, was insufficient to produce grave effects. Hæmaturia is not uncommon after intra-peritoneal operations performed under a carbolic spray. 4. Although disturbance of the generative organs appears at first sight to offer the easiest explanation, it must be noted that the sort of insanity was not of the kind usually associated with abnormal states of that system. Perhaps some may see an analogy between puerperal insanity and mental disturbance in this case. 5. Mere coincidence might be justly considered the best way of accounting for insanity thus following ovariotomy, if this were an isolated instance.—Mr. THOMAS BRYANT said that a few years ago Mr. Lawson Tait had referred to the development of symptoms of mania after the operation of ovariotomy and during the convalescence. He had had two cases of the kind, and recovery ensued in both. There was no family history of insanity and no urinary trouble. He could not help thinking that there was some connexion between the mania and the operation of ovariotomy.—Mr. ALBAN DORAN said that he had seen a young woman aged twenty from whom both ovaries had been removed. Acute mania came on three weeks after the operation, and lasted eight months without improvement. In cases of chronic ovaritis the patient might become demented; the chief symptoms were sluggishness and selfishness, and not those of an erotic kind.—Mr. MEREDITH said that it would probably be found that many cases of mania had occurred after ovariotomy; the insanity usually set in within a week of the operation. He spoke of the case of a single woman aged fifty-four from whom he had removed a large tumour weighing 7 lb.; it had many adhesions. All went well till the wound was healed. Acute melancholia suddenly set in about a month after the operation; the affection lasted for two months. There was no urinary trouble. He had an impression that mania had followed amputation of the breast.—Dr. EDIS thought that, looking at the serious nature of the operation, and regarding the extremely nervous and mobile temperament of the patient, who was thus in a high state of nerve tension, the occurrence of mania was not to be wondered at. He narrated the case of a yeoman farmer's wife who was naturally of a dull temperament, and who a few days after ovariotomy suffered from melancholia, which lasted about ten days.—Dr. F. L. BENHAM said that the nature of puerperal insanity was still unexplained. It was possible that the insanity after ovariotomy and puerperal insanity were dependent on similar causes.—Dr. BLANDFORD said that he could not say whether interference with the genital organs had anything to do with causing the mania, but the circumstances which attend the operation of ovariotomy are such as might induce insanity in psychical subjects. The young woman knew that a severe operation was to be performed; she was kept in bed with the bowels confined by the influence of a powerful drug like opium—such conditions might originate insanity. He did not think that the kidneys had anything to do with the occurrence of the mania, though Sir James Simpson had regarded albuminuria as the cause of puerperal insanity.—Mr. BARWELL, in reply, thought that even if the occurrence of mania after ovariotomy were relatively common, yet the fact does not seem to have been sufficiently recognised.

Mr. DAVIES COLLEY read the notes of three cases of Colotomy with delayed opening of the Intestine, in which after the bowel had been found by the usual operation for left lumbar colotomy, he had delayed opening it for one, four, and six days respectively. He considered that in the ordinary mode of operating there was considerable risk of peritonitis, or of suppuration in the planes of connective tissue in the vicinity of the colon, and that these dangers were much diminished by delaying the opening of the bowel until the deeper part of the wound had had time to be sealed by reparative processes. This plan had previously

been adopted at Guy's Hospital by Mr. Howse with successful results. The chief difficulty was to find out a mode of securing the protruding bowel in such a way as to avoid the extravasation of its contents or the strangulation of its walls. He had found that this could be satisfactorily effected by means of a clamp consisting of two steel bars, upon which were placed rounded ivory studs, about half an inch apart. Upon approximating the steel bars by means of screws near their extremities, the two pairs of ivory studs could be made to hold the coats of the bowel at two points. At the first dressing the screws should be relaxed, or the clamp might be altogether removed. By adopting this plan in two of the cases, rapid repair had followed, and there had been very little constitutional disturbance. In many cases in which the operation had to be performed on account of intestinal obstruction, it was obvious that this delayed opening of the bowel was not practicable. Mr. Davies Colley further submitted that a similar plan might be desirable in cases of tumour of the large intestine. The loop containing the growth might be left protruding from the wound for a few days, and then removed by the knife, cautery, or some caustic agent. Again, it might be expedient in cases of colotomy to draw out a complete loop containing the whole calibre of the colon, and to remove this loop after an interval of a few days. In this way the operation would ensure a perfect artificial anus, for the opening would then be the terminus, and not merely a lateral outlet of the intestinal tract.—Mr. BRYANT agreed almost entirely with the method advocated by Mr. Davies Colley. The method greatly diminished dangers arising from wounding the peritoneum. It was the escape of fæces into the peritoneum that excited peritonitis, and if the surgeon left the bowel alone until adhesions had formed, the risk would be considerably diminished. In performing colotomy by this method, he believed it to be a good plan to draw more of the bowel out of the wound than even Mr. Davies Colley had done. It was the passage of fæces through or past the lower opening that should be done away with, thereby removing the irritation to which the diseased bowel was exposed. If this were done the disease ceased to grow, and might even disappear altogether. This method of pulling out a knuckle of the bowel could be done in about half the number of cases of colotomy, and as much as three or even four inches of the bowel could be drawn out. Then at a later date, when the operator pleased, the bowel could be opened without risk.—Mr. HOWSE said that in his earlier cases he used a wire or suture, which transfixed the whole of the coat of the intestine in the same way as he had done in gastrostomy. But the nutrition of the colon was much less perfect than that of the stomach, and the risk of extravasation from the giving way of the suture in the bowel was greater. Later on he adopted other methods of fixing the intestine, and an old torsion forceps, which had lost its "biting" powers, was used, a thin india-rubber tube being passed over the blades and over the wedge of the forceps. By using these forceps to fix the bowel to the skin the risks of sloughing were much diminished. The forceps could be removed at the end of forty-eight hours, or on the third day. The bowel should be opened by as small an incision as possible; an opening sufficient to allow of the passage of a No. 8 catheter was large enough. He had employed this method recently in a case of intestinal obstruction, where the distension from accumulated gas was easily relieved. The possibility of colectomy referred to by Mr. Davies Colley could be accomplished by drawing out a complete loop of the intestine at the time of the operation. Later on it would be found difficult to excise the bowel, as he had considerable trouble in distinguishing the intestine from the surrounding structures, and, further, the structures become softened by inflammatory action; the removal must therefore be done earlier.—Mr. H. CRIPPS considered that the method advocated necessarily complicated the operation, which had better, he thought, be done at one sitting. There were two chief dangers in colotomy; the first was opening the peritoneum, and the second damaging the subperitoneal fat in the search for the bowel. He made reference to a simple procedure which was not available in cases of complete obstruction. It was an empty bowel which gave rise to so much disturbance, and he suggested, as others had done before him, that a No. 7 catheter should be passed per anum through the rectal stricture, and a Higginson's syringe attached by means of a soft indiarubber tube; inflation by this means makes the bowel rise in the wound precisely at that part which is uncovered by peritoneum.—Mr. DAVIES COLLEY, in reply, said that it was Mr. Howse's employment of the torsion forceps that gave him the idea of using the clamp. With regard to the performance of colectomy, he wished to say that it was at the first operation that the whole of the diseased intestine should be drawn out of the wound, the excision to take place later on. He could not agree that the operation of colotomy was really complicated.

The following living specimens were shown:—Mr. Charles Stonham: A successful case of Gastrostomy one month after the operation, which was performed on account of malignant disease of the pharynx. Mr. Macnamara: A case of Wiring the Fractured Olecranon, and another of Wiring the Fractured Patella. Mr. R. J. Godlee: A case of Empyema in a boy with much deformity of the chest. Dr. Hadden: A case of Obliterative Disease of Arteries and Veins. Dr. Coode Adams: A case of Psoriasis and Hemiplegia.

MEDICAL SOCIETY OF LONDON.

The Constitutional Treatment of Diseases of the Uterus and its Appendages.

AN ordinary meeting of this Society was held on the 16th inst., Dr. W. Miller Ord, President, in the chair.

Dr. C. H. ROUTH read a paper on the Constitutional Treatment of Diseases of the Uterus and its Appendages. He began by quoting several passages from Dr. Clifford Allbutt's Gulstonian Lectures, which referred to the not infrequent practice of gynæcologists of over-treating the uterus and neighbouring organs. He said that the cause of his reading the present paper was the result of the impression he had gained from a perusal of the Gulstonian Lectures of last year, to the effect that Dr. Allbutt had brought unfounded charges against gynæcologists. He admitted in the course of his paper that the neurotic element was a most important factor, but considered that many cases in which the neurosis was alleged to be the sole complaint there was danger in overlooking the uterine disorder. He spoke of the case of a virgin who suffered from gastrodynia and emaciation, which had been treated as one of primary nerve disorder, but which was found to be attended with prolonged leucorrhœa, and in which he had found uterine erosion. This case had been treated by a physician who had never examined the generative organs. Again, in certain cases of displacement of the uterus associated with headache and backache, and in which the patient was invalided and almost confined to bed for a period of many months, the symptoms were promptly relieved by rectification of the uterine displacement. Many cases bearing out his views were narrated, and the general conclusion was drawn that physical examination of the generative organs was decidedly neglected by many physicians and general practitioners. Reference was made to a case of cancer which had come under his care, and which had been previously overlooked for the simple reason that no vaginal examination had been made, the doctor in charge putting the patient's symptoms down to "change of life." In other cases of this kind he had detected a large number of mucous polypi, the removal of which led to the cure of the patient. The case of a lady, who suffered from severe metrorrhagia and many nervous symptoms, was shown to be due to the presence of fibroid growths in the uterus, treatment directed against which was also followed by a return of the patient to health. The failure to treat the local disease was therefore a source of much suffering to the patient, who was regarded as being the subject of a neurosis, to be cured by constitutional means. Cases of insanity were often dependent, in his opinion, on diseased conditions of the womb, and the case of a lady who was insane, and in whom an ulcer of the womb existed, was related; the insanity passed away and recovery ensued after local treatment of the uterine ulcer. He was not an advocate for frequent clitoridectomy, but he thought there were a few cases in which this operation would prove beneficial. Again, cases of hydro- and pyo-salpinx were not unfrequently overlooked by the physician, who treated the nervous symptoms without even recognising the existence of such local diseases. He concluded by stating that gynæcologists did not neglect constitutional treatment, but combined this treatment with proper local applications.

Dr. ORD said that Dr. Routh's paper chiefly dealt with the question of the necessity of a thorough examination of the

generative organs. It raised questions as to whether visceral and other neuroses might be due to uterine disease or not.

Dr. ALLBUTT said that he had been warned to expect an attack, but Dr. Routh's paper could scarcely be called an attack, seeing that he was entirely in agreement with the general tone of the paper. He said that his point was not that the uterus is not subject to local disease, but that it may sometimes be involved in disease as the result of a general affection. The uterus is like the heart, full of nervous and vascular connexions which bring it into relation with the rest of the body. Palpitation and pains about the heart may occur not as a result of disease of the heart itself, and so it was sometimes with the uterus. If a patient suffering from cardiac disorder due to disturbance elsewhere were told that his heart was diseased, it is probable that a grave hypochondriasis would develop, and so it was with women who were told that their uterus was diseased; the uterus was an organ hidden from a woman's observation, and there was more or less mystery attached to it, and if the patient were told that her womb was the seat of all kinds of horrible disease, she would be led to believe that she was in a very bad way and the mind would be correspondingly depressed; in fact, she would have the "arrow of hypochondriasis implanted in her heart." Whilst he admitted that there were primary diseases of the uterus, yet he believed that this was not always the case, and that women might suffer from nervous symptoms which were no more due to the uterus than were such symptoms when they occurred in man. Women, like men, were subject to neuroses of various kinds. Disease of the uterus, slight in itself, may set up severe nervous disorder which gradually overshadowed the original mischief, and may remain even after the local trouble had ceased. This kind of thing was admitted by all. It was most necessary, therefore, that the whole history of a case should be ascertained. In some cases it was difficult to make out which was or was not the "first stone thrown into the pond," but in his opinion in many cases the uterus is secondarily affected. He believed that many functional disorders, and some of the lighter kinds of structural changes, could be caused as the result of a primary neurasthenia. Such cases were sometimes treated as uterine from first to last. He had seen many cases which the gynæcologists had failed to cure with their local treatment, and no doubt these would balance with those cases which the physician had not, and the gynæcologist had, succeeded in relieving. It was for what he would call "the jury of the medical public" to decide between them. He admitted freely that there were a large number of cases in which the uterus was primarily diseased. With regard to the case of masturbation referred to by Dr. Routh, he thought that it cut both ways. It was open for him to say that it was the inherited neurotic taint that gave rise to the masturbation and other symptoms, that the masturbation was the flower and consequence of the nervous disease. He could not allow himself to be classed amongst the obscurantists, and he believed he had on every possible occasion admitted the great advances in medicine which the gynæcologists had made as the result of careful and necessary physical examination. He really counted Dr. Routh and Dr. Playfair as his allies, and referred in terms of approbation to the Weir-Mitchell treatment of neurasthenia which Dr. Playfair had so powerfully advocated.

Dr. PLAYFAIR said that he considered Dr. Allbutt's lectures had been chiefly directed against over-treatment of the uterus and to the mischievous effect which such over-treatment caused. There could be no doubt that sometimes neurotic affections became dominant and overshadowed the original uterine disorder. With regard to the necessity for physical examination, so strongly urged by Dr. Routh, he thought it was trying to prove what had already been demonstrated. He felt sure that great good would arise from the discussion of the paper, as it had enabled Dr. Allbutt to restate his views.

Dr. ROBERT BARNES maintained that the gynæcologist was not a specialist, for he followed the excellent advice of interrogating the whole of the functions of the body. In order to investigate the condition of all the organs there must be an application of the means of physical examination to every part, and the generative organs should be included in the investigation. He could not agree, that a primary neurosis could set up disease of the uterus except in a very problematical way. The heart was a "responsive" organ and influenced by emotions and other disturbances everywhere occurring, but we could not say the same of the uterus. He was glad to find that he was so much in harmony with the views of Dr. Allbutt.

Dr. W. DUNCAN considered that Dr. Allbutt had "hit the right nail on the head" when he denounced frequent uterine examinations. In cases of slight erosion of the womb or of endocervical catarrh the neurotic symptoms were out of all proportion to the disease, and so it was with flexions of the uterus. He found that general treatment directed against the neurotic condition was followed by cure; the local treatment should be of the simplest, and he deprecated anything like frequent examinations.

Dr. GRAILY HEWITT congratulated Dr. Routh on his paper and on the effect of it; for he confessed that a perusal of Dr. Allbutt's lectures had led him to believe that Dr. Allbutt discouraged treatment directed to the uterus, and now it was obvious that such was not the case. He had the fullest confidence in the Weir-Mitchell treatment, and he had given an introductory lecture some years ago at University College on this subject. He considered that constitutional treatment was most important, and that it went behind the other treatment. The omission of this element of treatment was, in his opinion, so frequent because of defective physiological education in reference to the elementary laws of the nutrition of the body. Those gynæcologists who paid no attention to the occurrence of displacements and alterations in shape of the uterus were those who paid no heed to the maintenance of the nutrition of the system.

Dr. HEYWOOD SMITH, Dr. WYNN WILLIAMS, and Dr. ROGERS joined in the discussion.

The PRESIDENT said that in the Gulstonian Lectures Dr. Allbutt had not attacked the principle of physical examination, but he had questioned the validity of some methods of uterine treatment.

Dr. ROUTH briefly replied.

OBSTETRICAL SOCIETY OF LONDON.

Extirpation of the Uterus for Cancer.

A MEETING of this Society was held on Wednesday, March 4th, J. B. Potter, M.D., F.R.C.P., President, in the chair.

The following specimens were shown:—Dr. Galabin: Uterus of an old woman with Cavity distended, from partial Obstruction by a Septum in the lower part of the Cervix and upper part of the Vagina. Mr. Walter Griffith: Menstruating Uterus. Dr. Herman: Uterus inverted from relative Shortness of the Cord.

The PRESIDENT delivered the annual address.

The adjourned discussion on Dr. W. Duncan's paper on Extirpation of the Uterus for Cancer was resumed by Sir SPENCER WELLS, who said that he thought the previous speakers had been too decidedly adverse to the principle of the operation, especially Mr. Thornton, who condemned not only excision of the uterus, but also the use of the curette, and would limit surgical treatment to amputation of the cervix and the use of chloride of zinc. Mr. Doran's remarks on the arrangement of the lymphatics tended the same way, implying the fear that, even in the early stages, the disease may have passed beyond the possibility of removal. Dr. Playfair condemned the operation utterly, referring to the uncertainty of the diagnosis till it was too late, and preferring Sims's operation (amputation followed by chloride of zinc) to extirpation, on the ground that it affords as much relief at a much smaller risk. He traversed Dr. Playfair's statement about his (Sir Spencer Wells) case of extirpation of the cancerous uterus, "that if the patient had been let alone or Sims's operation done, her expectancy of life would have been as good, to say nothing of the risks of the operation." The fact was that this treatment had been tried and failed, and the operation was done after it had failed to relieve pain or discharge, and after careful consultation as to the risks of inducing premature labour. The immediate result of the operation had been satisfactory, and great relief had followed for some months before the disease returned, which ended fatally in a year. In some cases, no doubt, chloride of zinc, or bromine, or chromic acid, or the actual cautery (if the patient is not pregnant) may lead to arrest of the growth for a year or more; but in most cases no more good, perhaps less good, is done by these than by simpler applications. He showed a specimen of the

result of Sims's treatment carried out by Sims himself. He scraped away all the diseased tissue with the greatest care, applied chloride of zinc, and the slough which came away represented nearly the whole uterus; the patient lived only four months afterwards, and suffered as much as if no treatment had been pursued. He then compared amputation of the cancerous cervix to partial removal of a cancerous breast, and maintained that if Sir James Paget was not aware of a single case of recovery (i.e., survival for ten years without any active return) after amputation of the breast, and yet operated in cases of cancer of the breast, we are justified in performing extirpation of the entire uterus even if no better result followed. Again, the results of Olshausen and Schroeder lead us to think that improved methods of operating may give us better results in the future. There is still much to learn in the details of the operation, and improvement both in early diagnosis and early operation may give a much lower mortality, retarded return, or even complete recovery. He trusted that condemnation of the operation may not be the verdict of the Obstetrical Society.—Dr. PRIESTLEY believed that statistics underrated the frequency of cancer, and that it was commoner in some places than in others. The disease was so terrible that all new operations should be considered with an earnest desire for their success. The two questions to be answered about extirpation of the uterus for cancer were those of immediate recovery and return of the disease. The answer to the first question was at present hardly satisfactory, nor was that to the second. With regard to Dr. John Williams' statement—that operation sometimes assisted the spread of the disease, by removing tissues which would have impeded its progress for some time and enabling it to attack deep parts earlier than it would if left alone,—he thought this happened in some cases. He therefore did not, under present conditions, advocate the operation of extirpation of the uterus for cancer. He mentioned a case in which a tumour had been removed from the cervix last summer, so skilfully that the cervix seemed almost natural enough to justify a verdict of mistaken diagnosis; within three weeks the disease returned and soon attacked the vagina, but the patient was still alive and in comparative comfort, simply from the use of palliatives consisting of tannin, sulphate of zinc, and iodoform in powder. The suitable cases for operative interference were those of early cancer of the cervix, in which total removal of the disease seemed possible. Some such cases remained free from disease for many years. Possibly in some more advanced cases removal of all within reach, followed by palliatives, might be justifiable; other cases he was disposed to leave alone. He thought that the mental distress of a patient about to undergo an operation should be remembered. He did not despair of the discovery of some remedy for cancer, especially since the latest observations on tubercle, which had some sort of pathological relation to cancer.—Dr. GRAILY HEWITT agreed that statistics are at present insufficient to determine the value of extirpation of the uterus for cancer. Removal of the cervix for epithelioma was an unquestionably valuable operation, but the treatment of cases in which disease had spread higher up was still doubtful. He had shared the responsibility of advising extirpation in Sir Spencer Wells' case, and thought that the result justified the opinion given. It must be remembered that the patient was pregnant, and that extirpation of the gravid uterus had not then (three years and a half ago), so far as was known, been performed. All experience justified the removal of cancer whenever possible. He insisted on the necessity of early diagnosis; in most cases the disease has obtained a firm hold before its presence is suspected.—Dr. GALABIN said that the majority of the speakers agreed with the view that in ordinary cases of cancer of the cervix the uterus should not be extirpated. This view, which was arrived at by the author of the paper after the performance of two operations, was that which Dr. Galabin had always held so firmly that he had always been opposed to the operation, and had neither performed nor advised it. Cancer of the cervix might begin anywhere, but in the majority of cases it began near the os externum, thence it ascended the cervical canal so far that slicing off the cervix with an écraseur almost always left some of the growth behind on the surface of the canal; but it spread even more rapidly over the vaginal cervix, and when the uterus was extirpated, the line of section would be nearest the growth at the surface of the vagina. It was not shown that in total extirpation any wider margin could be given than in supra-vaginal amputation, which operation could be done even when the disease had reached the vagina, and even if it were necessary to open the pouch of Douglas, this operation would still be less dangerous than total extirpation. His experience of chloride of zinc had been more favourable than that of Sir Spencer Wells. He did not excise the disease piecemeal, but all at once, and applied the chloride of zinc ten to fourteen days later. He generally found the line of section pass clear of all manifest disease. But in several cases in which this was not so, and the operation was therefore obviously inadequate, the results of the whole procedure had been good. In two cases the patients had returned after more than two years without any recurrence of the growth, but with retention of menstrual fluid from occlusion of the canal. As regards the chance of eradication, he did not think cancer of the uterus could be compared with cancer of the breast, which was generally carcinoma. In the cervix it was (in his experience) epithelioma at first, rapidly lapsing into medullary carcinoma. Cancer of the body was generally cylinder epithelioma at first. He thought there was greater chance of eradicating an epithelioma than a carcinoma. In cancer of the body he thought extirpation of the uterus was justifiable. The diagnosis, though difficult, was quite possible in the early stage, from examination of a fragment, to one accustomed to the healthy and morbid appearances of the uterine mucous membrane. He had had no ill consequences (such as those feared by Mr. Thornton) from the use of the curette. He generally used the blunt curette, which only removed prominent or superficial portions. In one case after curetting and the application of nitric acid to the cavity the patient improved so much that a mistake in diagnosis was suspected by the medical attendant. After a time, however, the disease returned.—Dr. EDIS thought that vaginal extirpation of the uterus was justified by a mortality of 28·6 per cent., which was no greater than that of ovariotomy in the early days. The mortality of supra-vaginal amputation was only 7·25 per cent., and the tendency to recurrence apparently no greater than in complete extirpation. Early diagnosis was a great desideratum; either patients failed to present themselves for examination, or their medical advisers put off consultation with experts till too late. Patients preferred operation to a lingering and hopeless disease. With our present limited knowledge, we could not assert that extirpation of the uterus for cancer was unjustifiable, if undertaken early enough.—Dr. W. DUNCAN said that he hoped the result of the debate would be to put an end to extirpation of the uterus for cancer of the cervix. Had he known the papers of Ruge and Veit on the pathology of the subject, he would not have performed his first case. In cancer of the body he considered the operation justifiable, and the curette was a valuable means of diagnosis, while he had not found any ill consequences follow its use. He did not believe that the mortality of extirpation will ever be as low as that of supra-vaginal amputation.

Reviews and Notices of Books.

On Renal and Urinary Affections. Part III. Miscellaneous Affections of the Kidneys and Urine. By W. HOWSHIP DICKINSON, M.D. Cantab., F.R.C.P. Lond. London: Longmans and Co.

ELEVEN years have elapsed since the first part of Dr. Dickinson's work "On Renal and Urinary Affections" was given to the profession. That, it will be remembered, was solely devoted to the consideration of Diabetes, whilst the second part dealt with those affections of the kidneys commonly known under the collective clinical term of "Bright's disease." The present volume, which completes the work, treats of the more general renal affections, such as suppurative nephritis, malignant and scrofulous disease of the kidney, stone and gravel, chyluria, hæmoglobinuria, phosphaturia, and functional albuminuria. If Dr. Dickinson's work were to be regarded as a systematic treatise, the want of logical arrangement of the different parts would no doubt cause inconvenience and some confusion to the reader; but regarded as a series of separate essays, the disjointed parts, with the help of a comprehensive index, fall together without

the reader feeling, to any great extent, the want of association. The fact, however, that it has taken eleven years to complete the work serves to strengthen the assertion we have previously advanced, that with the present rapidly advancing state of medical knowledge the age for the production of large treatises is past; for before an author has time fairly to master the literature of his subject, in itself a gigantic task, and arrange the details of his work, new discoveries necessitate a revision of much that he has already completed. Dr. Dickinson has undoubtedly solved a part of this difficulty by dividing his work into a series of monographs, but even here the obvious objection arises that whilst the last volume represents our latest knowledge on the subjects of which it treats, the first and second undoubtedly require considerable revision to bring them up to the same level.

In the present volume the essay on Renal Calculus deserves the first place for consideration. It is undoubtedly the most complete description extant of this formidable and painful affection. The etiology, structure, classification, symptoms, and treatment, are all fully detailed. The author is evidently no great believer in the solvent treatment of renal calculi, as advocated by Dr. Roberts; and this negative attitude is justified by the experience of the past, for in the days when solvents were largely used physicians pointed out that while good results were often obtained with vesical, the administration of solvents in the case of renal, calculi was nearly always futile. The reason of this lies in the fact that in the bladder it is possible to keep the stone always surrounded with alkaline urine, whilst in the kidney the action of the solvent is only partial and temporary. Dr. Dickinson does not allude to the possibility of causing encystment of the calculus by keeping the patient at rest, in one position, as much as possible. In cases where the calculus is tolerably large and an operation not advisable, this plan may be adopted with advantage. In one case which came under our observation it proved a complete success; and the fact that calculi are found thus encysted post mortem, in persons who have suffered but little during life, ought to encourage us to give the plan a fair trial. Speaking of pyelitis, the author criticises the statement of Roberts, that the very irregular, spindle-shaped epithelium shed affords "certain evidence of its origin," and maintains that epithelium of like character is derived from other parts of the urinary tract besides the pelvis. In this we quite agree with Dr. Dickinson, for we are sure that no positive conclusion as to its place of origin in the urinary tract can be drawn from the appearance of this epithelium, and the part of the urinary tract it is derived from can only be determined by other clinical indications.

In the section devoted to the consideration of Malignant Tumours the writer incidentally brings forward a very important question—viz., Which kidney is the more frequently attacked? Thus Roberts found in sixty unilateral cases each kidney affected an equal number of times. Ebstein, on the other hand, states that the right is attacked oftener than the left, in the ratio of thirty-one to twenty-three, whilst Dr. Dickinson found eleven belonging to the left side and only one belonging to the right. Our own experience is in accord with that of Dr. Dickinson; indeed, so frequently have we found the left kidney affected—as regards not only malignant, but other unilateral affections of that organ,—that we have considered whether the selection is altogether accidental, or if there may not be some as yet undetermined cause for the preference.

It would be impossible for us, with the space at our command, to notice all the good features of the work before us; but after the chapters on Renal Calculus, those on Hæmoglobinuria and Chyluria deserve special study and attention. We should, however, fail in our duty if after such commendation we omitted to point out those parts of the work which in our opinion fall short of existing knowledge on the subject. In the first place, we regret to find in the section on "surgical kidney" no reference is made to Mr. Beck's invaluable clinical and pathological researches nor can there be any excuse for the omission, since it is now six years since they were published in "Reynolds's System of Medicine," and have been generally accepted, as is shown by their having formed the basis for further investigations, and also by their having been adopted by most writers on pathology. The author no doubt differs from Mr. Beck, but, in omitting to reply to or notice views contrary to his own, Dr. Dickinson tacitly admits, we think, that they are unanswerable. Nor has he done full justice to the subject of phosphaturia. Although he speaks of the condition as "phosphuria," implying thereby that unoxidised phosphorus, as lecithin, glycerine, phosphoric acid, &c., may pass into the urine, he makes no allusion to that now well-ascertained fact, nor the conditions of the nervous system in which it has been noticed. Nor, even when speaking of the elimination of phosphates, does he refer to the numerous facts recently determined, chiefly by German observers, with regard to the relative elimination of nitrogen and phosphoric acid under different conditions of metabolism. Again, the important clinical fact, that certain pathological states are characterised by a decided diminution of phosphorus in the urine, is not mentioned; as, for instance, Gee's observation as to the almost complete disappearance of the phosphates from the urine in ague, and the similar observation that has been made as regards scurvy, and after the administration of certain medicines, such as bromide of potassium, &c. All these points ought to have received attention, since it is alone by the study of them that we can hope to get an insight into the nature of the tissue changes occurring under pathological conditions. Apart from these objections, we must congratulate Dr. Dickinson on the high quality of his work throughout; it is that of a scholar, a scientific physician, and a clinical teacher, and will for long hold its place as a classic treatise on the subject of which it treats. Nor, whilst awarding this high degree of praise to the text, must we forget to mention the very admirable engravings that illustrate it.

THE SHOEBURYNESS EXPLOSION.

THE following is a description of the fatal injuries incurred by the officers who lost their lives by the recent sad accident at Shoeburyness:—

Colonel Fox Strangways: Laceration of right foot, part of great toe blown away, compound comminuted fracture of both legs. Amputation of both legs was performed by Sir W. Mac Cormac after midnight. Death from shock before 8 A.M. the next morning.

Colonel Lyon: Both legs completely smashed, great shock. Amputation of both legs immediately performed by Mr. Deeping and Mr. Jones. Death from shock about 8 A.M. next morning.

Sergeant-Major Daykin: Compound comminuted fracture of left leg, involving the knee-joint. Amputation at the middle of thigh by Mr. Jones. There was also severe chest injury. Death from shock next morning.

Gunner Underwood: Compound comminuted fracture of right thigh. Amputation by Mr. Morris. Death from shock next morning.

Gunner Allen: Right leg blown away from below knee, lacerated wounds under chin and on side of throat. Killed on the spot from profound shock.

Mr. Rance: Large lacerated wound in the middle of both thighs, wound under left knee crushing the tibia, the fragments of shell passing backwards and downwards and coming out through the lower part of the calf. Shock and depression so great that no operative interference was resorted to. Died from exhaustion on the ninth day.

Colonel Betty and the officers of the garrison, Shoeburyness, have sent a letter of thanks to the medical men who rendered aid to the sufferers by the explosion, Messrs. Deeping, Phillips, Morris, and Jones, and have requested them to consider themselves perpetual honorary members of the Royal Artillery Mess, Shoeburyness.

THE LANCET.

LONDON: SATURDAY, MARCH 21, 1885.

A VERY important paper has just been issued by the Director-General of the Army Medical Department, entitled "Sanitary, Medical, and other Notes and Memoranda for the information of the Principal Medical, Sanitary, and other Officers of the Army Medical Staff of the Suakim Expeditionary Force." It bears evidence of a careful study of the subject, a thorough practical knowledge of the requirements of the troops on active service, an ample and judicious provision for their wants, and some excellent hints for the guidance of the medical officers. The notes are already so condensed that it is impossible to give a summary of them on all the points treated; we shall therefore content ourselves with noticing a few of the more important.

A detail is given of the hospital accommodation which is to be provided under the three classes of base hospital, floating hospital, and field hospitals; and the hospital at Suez will also be available for the reception of cases. A staff of nurses will be provided for the base, floating, and Suez hospitals. Full instructions are given for sanitation at the ports, on the march, and in camp; for the assistance to be afforded to the wounded in action, for the first dressing on the field, their immediate transport to the field hospital, "where antiseptic surgery and dressing can be skilfully and properly applied once for all," and their removal by a staging system of transport to the stationary hospitals, where "provision can be made for equipment, dieting, clothing, nursing, and, ample supplies of medical and surgical equipment." The subject of water has received due attention, and instructions are given as to the best means of rapidly testing its quality, and, so far as is practicable, ridding it of impurities. Rules are laid down for the conservancy of camps and hospitals, and the disposal of refuse and of dead animals. When there is an early morning march, or the men are employed late at night, it is recommended that a ration of hot cocoa and milk, coffee or tea, should be issued, we presume in addition to the regular ration.

The diseases of which the prevalence may be anticipated are diarrhœa and dysentery, enteric fever, heat fevers, heat exhaustion and sunstroke, and ophthalmia. The two great factors in the production of disease are fatigue and insufficient nourishment. "Climatic conditions are so far secondary to these that they may, to a greater or less extent, be overcome by the avoidance of one, and ample provision for the other." Dust and flies and overcrowding are recognised as the chief causes of ophthalmia, and with a view to its prevention the men are to be encouraged to wear glasses and veils, and overcrowding in tents is to be avoided. As a protection against the effects of the great diurnal ranges of temperature in causing diarrhœa and dysentery, each soldier is to be provided with two flannel belts, and puggarees and back pads (spine protectors) are to be issued to guard the men from the direct solar influence. The remarks on diarrhœa and enteric fever are very judicious, and the necessity for treating all cases of diarrhœa attended with elevated temperature as enteric fever, at least in the first instance, is enforced. "It is to be borne in mind, too, that in actual practice in warm climates, and under the conditions of field service, this fever does not invariably conform to the temperature ranges which have been far too arbitrarily laid down by medical authors, for a fever may be non-conformable to such ranges, and yet be indubitably enteric fever."

The instructions with regard to the "Wounded in Action" appear to us to be perhaps the most valuable portion of the paper, especially as pointing out the danger of officious surgery. "It is a mistake to suppose that much is needed, or can be done, for a wounded man under fire or immediately after an action, except attending to his pressing requirements and moving him carefully to a place of safety, where the necessary time and attention and the results of consultative measures can be applied.....In small wars with semi-civilised nations, like the present expedition, it should be quite practicable to advance a field hospital, or section thereof, together with a portion of a Bearer Company, well to the front—that is, to carry the hospital to the wounded instead of the reverse. Under such circumstances the wounded should be at once transported there without being first subjected to the risk of defilement of the wound by the hurried application of a first dressing, or the displacement to the coagulated blood agglutinating its sides and edges." The first dressing should be of the simplest kind, and ought to consist chiefly in covering the wound, placing the injured part in a suitable position, and when necessary rendering it immovable. The first dressing recommended by Professor LONGMORE consists of carbolised tow, carbolised gauze, bandage, safety-pin, a triangular bandage, a wrapper of tinfoil, and a parchment paper cover impregnated with ½ per cent. of corrosive sublimate, and appears to be well adapted for field service. "The principles of modern surgery are to keep a wound, if possible, aseptic throughout; if this cannot be secured, to make it antiseptic, to keep it in a state of physiological—that is, absolute—rest, and to secure drainage." The method adopted successfully in the Egyptian campaign is described, and instructions given for its application under various circumstances. We concur most fully in the opinion that "all surgery or dressing that has not a definite object in view is meddlesome, and meddlesome surgery or dressing is fatal to the aseptic or antiseptic method."

Ample provision appears to have been made for the sanitation of the force, for the treatment of disease when it occurs, notwithstanding the sanitary precautions, and for the help of the wounded in the field, so far as these arrangements depend upon the Head of the Medical Department. We trust that the military arrangements for supply and transport may be equally judicious, for on them must depend much of the success of the others. As bearing upon this point, the Director-General gives a very judicious caution to the officers of the medical staff:—"In view of the difficulties of transport, medical officers should be impressed with the necessity of having a few well-selected drugs in as concentrated a form as practicable, and they should be cautioned to avoid 'a run' on one drug when others would suffice for the same purpose. The better the medical officer, the fewer will be the drugs he will require

for the efficient treatment of the sick and wounded in the field at the front." The notes and memoranda cannot fail to be most useful to the officers employed in this expedition, and afford gratifying proof of the watchful care of the Head of the Department and the sound judgment evinced in making the necessary professional arrangements. We have but one fault to find with them: they would, in our opinion, have been better adapted for service had they been printed as a pocket manual instead of in the folio form characteristic of War Office documents.

SINCE Sir LYON PLAYFAIR'S celebrated argument in favour of his views of medical reform the question of the numerical strength of the profession has become one of great importance. Though the whole situation of the country and of Parliamentary government scarcely permits us to hope that anything so sensible and reasonable as the Medical Bill of the Government will be passed, yet it is possible that it may be reintroduced, and the worn-out and very poor arguments of last year repeated. Our readers will remember that Sir LYON PLAYFAIR frightened the House of Commons by the appalling picture of a community without sufficient doctors. The argument was, "Be careful *how* you improve medical education; if you overdo your improvements, you will deter young men from entering the profession, and the natural waste of the profession, which is 1600, will not be met by an adequate supply." The argument at best was a bad one from Sir LYON PLAYFAIR. If arguments are to be used for keeping down medical education, they come with ill grace from the representative of an ancient and famous university, whose function ought to be to hold high the standard of medical knowledge. But the argument was not only unworthy of Sir LYON PLAYFAIR. The basis of it was one of sand, as we showed at the time. So far from the waste of the profession being 1600, we proved that, with great pains to ascertain the deaths of medical men when they occur, the indefatigable registrar, Mr. MILLER, cannot succeed in getting evidence of the decease of more than between 500 and 600 in the year, while the names added to the Register are annually over 1200. The new Register confirms the inaccuracy of Sir LYON PLAYFAIR'S representation, from which a very slight acquaintance with the facts of the medical profession would have saved him. It must be patent to anyone who takes any pains to observe that there are many indications of overcrowding in the profession and of unseemly pressure of competition, such as low medical charges and the excessive number of applications for the most ordinary appointments. But a few facts from the Medical Register for 1885, just issued, will give the statistical proof of what is so obvious. In the Register for 1885 there are the names of no less than 25,321 medical men. The average number of names in the Medical Registers for the last four years, and in those for the four years preceding the last, are respectively 24,228 and 22,723, or a difference of 1505 per year in the last four years. The number in the Register for the present year is 25,321, as against 24,517 the year before, or 804 more. We have said that the ascertained loss of the profession by death is between 500 and 600. Taking an average of nine years the annual number of ascertained deaths is 572·5. Of course, there are other ways in which practitioners are lost to the public, as by retirement. But these must be comparatively few. Let us now place clearly before our readers the new registrations. In the last year the new registrations were in England 769, in Scotland 381, and in Ireland 238, making a total of 1388. In the year 1883 there was a total of 1304. The average annual additions to the Register, or new registrations, for the last four years were 1229, as against the average of 1013 in the four years preceding these. We need not say more to prove that there is nothing in the supply of medical men to make the Legislature hesitate in raising a little higher the standard of medical education, while there is much in the facts we have adduced to make young men ponder before they enter a profession already overcrowded.

Table F, from which we have quoted these interesting facts, is only one of a number of tables which, with all the Medical Acts of Parliament and other information, on the whole very accurately collated, make the Medical Register a very important publication. In this very Table there is given for the first time a complete statement of the number of persons whose names were entered in, added to, or removed from the Medical Register for each year from 1876 to 1884 inclusive. In the case of removals, the section of the Act under which the removal was made is given, and is ordinarily, of course, the 14th section, or that which empowers the Council to remove a name if, after a certain time, communications from the Registrar are unanswered. What strikes one as least satisfactory in this process is the irregularity with which it is done. In some years hundreds are removed, and in others only scores or less. Time and the experience of individual members of the profession alone will show how far the actual work of individual registration is done with accuracy, but there is little reason to doubt that ever-increasing pains are taken to make this volume what it ought to be.

THE interesting paper on the Diet of the Febrile State read at the annual meeting of the Medical Society of London by Dr. ALLCHIN, and which appeared in THE LANCET on the 7th inst., will no doubt give a stimulus to researches of a similar kind with regard to the dietetic treatment of disease generally. To this subject the ancients paid more attention than modern physicians have hitherto seemed inclined to bestow; for though we have many valuable treatises relating to diet, they mostly refer to the chemical constitution of the food stuffs and their digestibility, whilst little is said in reference to the modifications required to meet the altered conditions that arise in various pathological states. Indeed, very little is known respecting the tissue changes that occur in disease. It was only quite recently that the views originally enunciated by LIEBIG ceased to dominate our speculations with regard to the chemico-pathological processes occurring in fever. According to this view, it was held that the tissue changes depended on the amount of oxygen taken in by the lungs, so that on increased respiration a more intense combustion took place, metabolism was increased, with the production of more carbonic acid and urea. The natural outcome of this view was to support the idea that fevers required feeding; that more fuel was requisite to supply the loss due to increased combustion. The fact, however, that the increased excretion of urea usually precedes the rise of temperature, has strengthened the

supposition, which for some time has been gaining ground, that instead of increased metabolism being the result of increased oxidation, it is the increase of the intra-molecular action in the cells themselves that occasions the demand for oxygen. According to this view, the cells are supposed to be to a certain extent independent of the amount of oxygen supplied to them by respiration—that is, that though they originally obtain their oxygen by that process, they are able to store up a portion of it either for reserve or independent use. In fever, therefore, probably under the stimulus of the zymotic poison, the intra-molecular activity of the cells increases, their store of oxygen becomes exhausted, and the demand for a fresh supply leads to an increased frequency of pulse and respiration.

Now, if this view is correct, the propriety of giving an excess of food, especially nitrogenous—which is known to stimulate the intra-molecular activity of the cells throughout the body,—may be questioned. Then, again, with regard to the economy of oxygen which this theory entails, it is important to select a food which is itself easily oxidisable—that is, readily converted into carbonic acid and water. Speaking roughly, we may say that in the starchy and saccharine constituents of our food the carbon and oxygen are in equal proportions, whilst in the proteids the carbon is as three to one, and in the oleaginous constituents as eight to one. We know, however, so little of the synthetical and analytical processes taking place in the conversion of food into tissue that we cannot yet apply this knowledge to any practical deduction. If, as is now generally supposed, a considerable proportion of the starchy and saccharine matter is converted into fat, then during this synthetical conversion a large amount of oxygen will be liberated, which for a time is available for the requirements of the body. This would point very strongly to the conclusion that starchy and saccharine matters should form the basis of the dietary of the febrile state, though of course a certain amount of nitrogenous food is also required. It is not, however, sufficient merely to consider the question in relation to tissue metamorphosis, but the state of the secretions necessary for efficient digestion. These, as we know, are both qualitatively and quantitatively affected, and their activity diminished; consequently, if we would avoid fermentative changes resulting from delayed intestinal digestion, we must supply their place or add to their power by means of already partially digested foods. Unfortunately, however, the preparations hitherto proposed for this purpose do not combine palatableness with efficiency; an improvement in the former condition is therefore much to be desired.

It is not merely with regard to the dietetics of the febrile state that physicians are concerned; there are other diseases in the treatment of which diet plays a prominent part. Thus, in albuminuria Dr. AUFRECHT insists on the abstention from milk in nephritis, and others advocate treatment based upon the administration of skim milk solely. Who is right? Or if the question lies between the treatment of acute nephritis and chronic nephritis, at what period should the milk treatment be commenced? Then, again, there are questions with regard to diabetes that still call for solution, as for instance the advisability of enforcing absolute restriction from starchy food in protracted cases of the disease; some authorities maintaining that a too exclusive diet is in the long run more injurious than limited indulgence, whilst others maintain the reverse. Then as to the dietetic treatment of gout; we are here confronted with opposed opinions and diverse theories, and are puzzled to decide between the ascetics and those who advocate a more liberal dietary, or else to halt halfway with the disciples of SYDENHAM, who, whilst advocating temperance both in food and in drink, point to the danger of too great abstinence, and who think that whilst wine is injurious as an ordinary beverage more danger arises from the exclusive use of water. In scurvy and its allied disorders there are many questions still remaining for settlement, such, for example, as whether vegetables when preserved retain their anti-scorbutic virtues. What is the exact position of fresh meat and milk as antiscorbutics? And, above all, what gives to a minute dose of lemon-juice such an enormous protective or curative power? Then, again, with regard to disorders of digestion, Dr. LAUDER BRUNTON, in the Lettsomian Lectures of this year, upset many of our well-established notions as regards their dietetic treatment. Those lectures and the present communication of Dr. ALLCHIN will mark an epoch in the history of dietetics, since at last it seems that the advanced physiology of the day is to be applied to the exploration of this hitherto neglected branch of medical practice. We hope, however, now the ground has been broken, that conclusions will not in future be so entirely based on theoretical and physiological statements, but that practical observations giving the results obtained with different diets under similar conditions will be placed on record.

THE scheme of Admiral Sir EDWARD INGLEFIELD, proposed and submitted for public adoption by the Prince of WALES, will be cordially accepted and supported by the medical profession. It is most fitting that the memorial to General GORDON should take the form of a hospital so placed as to satisfy a most pressing need for the advantage of all nations. His Royal Highness simply and eloquently expressed the sentiment of all classes of this and other communities when he said, "I think there is no institution which would have been more acceptable to General GORDON than a hospital with which his name would have been associated. He was, perhaps, one of the most unselfish of men ever known, and his thoughts were always of others." The great lesson of GORDON'S life was sacrifice; and the moral of his most lamentable death in the Soudan, through the procrastination of Ministers at home, was sacrifice in its last development. He lived for others and he died for others. It is a poor thing for this nation to commemorate his memory at all, seeing that it was by our neglect he was left to perish; but it is at least fit and proper that the form our memorial takes should be one in harmony with the character of the departed hero, whose death we "too late" mourn.

The Egyptian hospital at Port Said has long been a reproach to the age, not less than to the unhappy country whose degenerate state it too well indicated. Everything in Egypt, or under the blighting influence of the benighted government of a succession of incompetent Khedives, is contemptible; not merely for its intrinsic worthlessness, but for the mould of

decay that neglect and corruption encourage to grow over it. Some day, when the truth is no longer suppressed, and those who know Egypt and its rulers personally can speak out, the public conscience will be scandalised by a sense of the folly and weakness displayed in supporting the craven tyranny of selfishness and immorality under which the land of the PHARAOHS has so long languished. As a matter of fact, the rude people of the Soudan who are dying bravely at the points of our bayonets for their liberties and their homes are as much the superiors of the Egyptians in every attribute of manhood as the noble races of India are above the lower orders of "whites." England, as the greatest Mahommedan Power, had no more reason to range herself on the side of the Egyptians against the Soudanese than she would have in taking the part of the Muscovites against either of the lesser nationalities they have sought to oppress. The Mahdi, as a false prophet, might have been exposed and defeated in the name of ISLAM without butchering the Soudanese, whom he has seduced and enslaved mainly, if not entirely, because we have played fast-and-loose with the bankrupt puppets of Alexandria and Cairo. It is a miserable business, this Egyptian *fiasco*, look at it how we may.

A gleam of sunshine in the midst of the gloom falls on the grave of GORDON, who went out almost single-handed to try to repair the breach and to remedy the blunder his knowledge of both Egyptians and the Soudanese enabled him only too clearly to perceive. It will hereafter be a ray of comfort as we look back to remember that out of the muddle we have made one act of humanity in sympathy with the life-long ideal of the man so sadly lost to us has been performed by us, though it be after his death. The moral effect of a good hospital, constituted on cosmopolitan principles and properly administered, at Port Said, can scarcely fail to be considerable. It will be well if we are permitted to leave this one trace of benevolence in the region where we have left so many memorials which posterity will view with less complacency. We heartily wish the scheme success, and cordially endorse the claim addressed to all classes of the people for its support.

A CASE is now under the consideration of the Local Government Board which, it may be hoped, both on personal and on public grounds, will be dealt with in that spirit of generosity which the circumstances call for as a right. One of the Orders of that Board recites that every principal officer appointed to the fever and small-pox hospitals of the Metropolitan Asylums Board shall continue to hold his office until, amongst other conditions, he shall die, or resign, or be dismissed by the Board of Management with the assent of the Local Government Board, or by the Local Government Board, or until the Board shall consider it desirable that his duties should cease or should be modified. It is well known that since the report of the Fever and Small-pox Hospitals Commission a change of practice has been inaugurated by the Asylums Board as regards the future use to which the small-pox hospitals are to be put; and this change apparently renders it unnecessary, in the eyes of the Asylums Board, that there should any longer be two separate principal medical officers at each hospital. Hitherto one has had charge of the fever hospital, another of the small-pox hospital; but the rapid removal of small-pox patients to the hospital ships does away with all but a few beds for small-pox cases at each hospital centre, and the several isolation centres are now to be regarded essentially as fever hospitals only. At the South-Western Hospital at Stockwell Dr. F. R. BERNARD has had charge of the small-pox establishment; and the fact that he has remained in the service of the Board for nearly nine years, coupled with the circumstance that his salary was raised so recently as last year, and that he was selected for the extremely onerous duty of supervising much of the work carried on at the Darenth Camp, make it quite unnecessary to refer to the efficiency of the services he has rendered as an official of the Board and as a public servant.

But some two months ago he received from the Asylums Board an intimation that, since the two hospitals at Stockwell are henceforth to be under one medical head, application was about to be made to the Local Government Board to issue the order necessary to the dispensing with his services in the future. At first sight the despatch of such a letter to such an officer, under such circumstances, appears well-nigh incredible, but it would perhaps be wrong to infer from its official baldness that the letter of the managers implies that no proper recognition of the services which Dr. BERNARD has rendered will be made. The right of the managers to remunerate their officers is, at least nominally, limited by the need for sanction from the central authority; and it may be that, should that authority decide in favour of the views of the managers as to the appointment of one principal medical officer only at Stockwell, then the question of compensation for abolition of office will be subsequently considered. It is quite true that such compensation cannot be claimed as a right, but when a medical man has given the best and most energetic years of his life to public services of a specially trying character, and when his post is abolished as a mere matter of administrative convenience, the circumstances are such as, even on public grounds alone, to call for the exercise of liberality. Dr. BERNARD has been informed by the Local Government Board of the request which has been addressed to them by the managers, and he has been asked if he has any observations to address to that Board before they form a decision on the application. The observations which this last letter has called forth are naturally addressed to the subject of pension or compensation; and seeing that Dr. BERNARD will, if the order dispensing with his services should be issued, have practically to recommence his professional career, it is sincerely to be hoped that the central authority will make any abolition of his office contingent upon ample compensation in some form or other. Hitherto the Metropolitan Asylums Board have been able to command high-class services from men who have been ready to devote the prime of their lives to duties the performance of which has deprived those holding office of nearly all that social intercourse which is so highly valued by men who have had a scientific and professional training. Should the managers wish to retain their power of attracting to their service medical men of a similar standing they will do well, in such a case as Dr. BERNARD'S, themselves to initiate the proposal to offer adequate compensation on abolition of office. The proper stage in the official programme may not yet have been reached for the

embodiment of this proposal, but many will look for its advent, and all who are interested in the efficient medical working of the important hospitals which are placed under the management of the Asylums Board will hope that Dr. BERNARD'S retirement may be accompanied by conditions which will do honour to those whom he has so long and so faithfully served.

Annotations.

"Ne quid nimis."

PHYSIOLOGY AT CAMBRIDGE.

A DISCUSSION took place on Thursday, the 12th inst., in the Arts Schools at Cambridge, respecting a proposal to enlarge the physiological laboratory, and provide additional lecture and teaching rooms for physiology and pathology, at an estimated cost of £9000. The proposal is made in consequence of an urgent representation by Professor Foster of the necessity of such addition, owing to the rapid increase in the number of the medical students. It was, on the whole, favourably received. The Senate of the University of Cambridge have always regarded in a liberal spirit the study of physiology and the various subjects more or less directly connected with medicine, and have never yielded to the vivisection scare. Indeed, remarkable as it may seem to those who have followed the recent controversy at the sister University, and noted the excitement attended on it, the matter of vivisection was not even alluded to by any one of the speakers. They recognise it as a necessity to the advance of a science which is closely related to the welfare of the human family, and I take the common-sense view that certain evils must be incurred for the purpose of attaining great and good ends, and they trust to those whom they have placed in positions of responsibility, and with whom they are in daily personal intercourse, that the evils will be minimised as much as possible. The desirability, indeed the importance, of assenting to the request of the physiologists was not questioned. Even the financial difficulty was not unduly pressed, when we bear in mind the great and increasing demands upon the University chest—demands which far exceed the income, and which can be met only by borrowing, and so forestalling future revenue. This, it seems, will have to be done; and a careful statement respecting the funds of the University, and the disposal of them, lately issued by an eminent member of the Senate, with an estimate of prospective income and expenditure, shows that the current resources do not, and will not, more than meet the current needs, that there is no reserve fund, and that the extraordinary demands for building, &c., which necessarily arise must be provided for in some special manner.

DEATH OF PROFESSOR VON FRERICHS.

A TELEGRAM from Berlin on Saturday last conveyed the news that Professor von Frerichs was dead. Just twelve months ago the University was celebrating the twenty-fifth year of his professoriate, and many of his former pupils assembled to do him honour; for he was rightly regarded as the foremost exponent of clinical medicine in Germany. By awarding him the patent of nobility, the German Government showed that it recognised his high merit. Professor von Frerichs was born at Aurich in 1819, and studied at Göttingen, whither he returned after a brief period of practice in his native town, to serve as a *privat docent*. In his earlier years he showed by his work an inclination rather towards chemistry and physiology than to medicine; but in 1849 he commenced at Kiel the path of clinical medicine, which he further pursued at Breslau, where he went in 1851. At Breslau he was not only clinical professor, but also pathologist, and his pathological demonstrations were thorough and exact. Whilst there he published the first volume of his work on the liver, known to English readers in Murchison's translation for the New Sydenham Society. Besides this treatise on diseases of the liver, he wrote one on Bright's disease, in which he enunciated the idea that uræmia was due to poisoning by carbonate of ammonia; and last year he published a monograph on diabetes. Called to Berlin University in 1859, the reputation already gained adhered to him, and his clinic was attended by students from all parts of the world. Amongst his pupils were Naunyn, Quincke, Ewald, Eichorst, Litten, and Ehrlich. Professor von Frerichs had been president at the annual meetings of the German Medical Congress, which assembled last year in Berlin to do him honour. Next month the Congress reverts to its previous meeting-place at Wiesbaden, but its proceedings will be saddened by the loss which not the Congress only but the whole of Germany has sustained in his sudden removal. It may be well to recall the incident that happened last year to which we then alluded (THE LANCET, March 15th, 1884, p. 486) when he addressed his class at the close of the fiftieth session of his labours at the university. He said "it was with mingled feelings of joy and sorrow that he concluded the course. Thousands had sat on those benches, and were now scattered not only throughout Germany, but in all parts of the civilised world. It had been his aim to instruct them in the methods of examination of patients, how to weigh the signs of disease and form a diagnosis, and they had frequently been able to see the confirmation of the latter in the post-mortem room. And he had tried to show how treatment on physiological grounds was related to diagnosis. The material was inexhaustible, and could he lecture for another twenty-five years it would still be unexhausted, so true were the words of their old master Hippocrates, that 'life is short, and art long.'"

THE BRISTOL COMMISSION ON THE POOR.

THE town of Bristol has organised its own committee on the housing of the poor, and it may be congratulated on having accomplished its mission with a thoroughness and promptitude that are not unworthy of serving as an example to the larger body investigating the same subject in London. The result of the inquiry, published in a compact volume, may be studied with advantage, as most of the questions put and answered apply equally well to almost every centre of population. Indeed, they apply with perhaps greater force to other towns than to Bristol, which in 1883 was able to show a lower death-rate than any of the twenty-eight large towns of England. The general death-rate of Bristol in that year was only 17·9 per 1000, and the zymotic death-rate 1 per 1000. Yet in 1850 the death-rate was 28 per 1000; but since then the town has been thoroughly drained, cellar dwellings abolished, and considerable improvement made in the condition of inhabited houses. The good work is not, however, yet complete. There are many houses still which have no back yards, no back windows, and no through ventilation. In several of these houses a man, wife, and adult children were found living in a single room; yet the rents, though too high, are much lower than in poor quarters of London. To this promiscuity of the sexes is attributed much of the prevailing immorality, other causes of which are also pointed out by the commission. "The harshness of parents and the hardness of all classes of society" towards young women after their "first fall" are, according to the report, the principal causes that drive young girls to prostitution, and the commissioners urge that more charity

be exhibited to the erring, believing that "if more mercy were shown by parents, friends, and the public after a first fault, many lives would be saved from ruin." The absence of such truly Christian charity has brought about the most deplorable results, and medical evidence goes to show that syphilis of a virulent type prevails extensively among the loose women of Bristol, whose ages vary from twenty to thirty, though younger girls seem comparatively exempt. The action of the School Board is much praised in having rescued young children from immoral and unwholesome surroundings. As remedies, the commissioners recommend a more strict application of the Sanitary Act, the purchase of likely property by committees or societies who will befriend their tenants, content themselves with reasonable profits, and watch over the sanitary condition of the houses they sublet. The poor require "personal service" more than almsgiving. "The relations of landlord and tenant should beget a worthy sense of kinship," and the call for rent be looked upon as the weekly visit of a sympathising friend. But this ideal state cannot be expected where poor tenements are farmed out to money-making speculators. The report testifies to much arduous work; and though it bears the impress of certain narrow class prejudices, such as the dislike of political clubs for working-men, the citizens of Bristol have, in this endeavour to better the condition of the poor, set a good example.

THE PATENT MEDICINES STAMP TAX.

LAST week the Chancellor of the Exchequer, in the House of Commons, in reply to Dr. Cameron's question on the Patent Medicines Stamp Tax, stated that he had been in communication with the Board of Inland Revenue, and had also consulted with the President of the Council. A Bill or Bills would be introduced, but it was impossible to say what steps, if any, would be taken during the present session. This vague answer has, we understand, given general dissatisfaction, and the *Western Morning News* and other influential provincial papers state emphatically that "the whole thing from a revenue point of view is despicable." It is pointed out that ample time has been afforded for a careful consideration of the subject in all its bearings, and that the public have a right to expect some more definite declaration of policy on a subject which affects so vitally the well-being of the nation. On Monday night the question again occupied the attention of the House, and Mr. Puleston asked the Chancellor of the Exchequer whether his attention had been called to the following statement which had appeared in a leading article in THE LANCET—viz., "Scarcely a day passes without the record in the papers of an inquest on some poor deluded victim who has been sent to his last account from an overweening confidence in one or other of the much-belauded patent medicines. The facility afforded for obtaining narcotics, whether it be in the form of opium, morphia, or the deadly chloral, is a consideration which cannot be overlooked. In no other country can poisons be purchased wholesale without a strict inquiry as to the purpose for which they are required, but in England they are sold openly and without restriction under the guise of patent medicines." And whether having reference to the proposed legislation on this subject, he would cause inquiry to be made, with a view to obviating the evils arising from such a condition of things, if they were shown to be as stated. To this the Chancellor of the Exchequer replied that, considering the very large number of articles on the subject which had appeared in all the papers, both medical and general, it was quite out of his power to give an opinion on any particular observation contained in them. He had already stated that the matter was under consideration, and that legislation would be proposed either in this or next session. This answer, we must confess, seems to us to be even more unsatisfactory than that given in reply to Dr. Cameron's question. Mr. Childers seems to be strangely oblivious to the fact that more than six months ago he undertook publicly to obtain certain documents and study them "with care."

THE LATE GENERAL STEWART.

THE Editor of the *Manchester Courier* has courteously favoured us with a report of General Stewart's wound, just received from their correspondent in the Soudan. From this we learn that the gallant General was struck by a bullet over the left anterior superior spinous process of the ilium, and that the ball passed along the iliacus muscle, produced a stellate fracture of the posterior part of the ilium, and lodged in the upper end of the left sacro-iliac synchondrosis. The peritoneum was not wounded. Death was caused by exhaustion on Feb. 16th, between Abu Klea and Gakdul. Assuming that this is a complete description of the injury, it is evident that the wound was not necessarily fatal, although a very grave one, in which extraction of the bullet was not practicable. As we had occasion to remark in connexion with the wound of the late General Garfield, the mere lodgment of a bullet in the tissues of the body is not necessarily a fatal or grave lesion. In such a case as General Stewart's everything depended upon whether it were possible to render and to keep the wound aseptic. If the bullet carried in germ-laden foreign bodies, portions of clothing, &c., and these could neither be removed nor properly cleansed, septic suppuration would be set up, with all the dangers of systemic poisoning, exhaustion from the constant drain, or spread of the inflammation to the neighbouring serous membrane. This appears to have been the case with General Stewart, and the fatal result was probably due in greater part to a form of septic absorption than to the mere drain upon the system entailed by the continuous secretion of pus. This view receives considerable support from the fact that there was marked fever during the last few days of the General's life.

THE PROTECTION OF ABANDONED CHILDREN IN FRANCE.

WE recently noticed the efforts made by the French Legislature to protect the health of infants, and gave some description of the results attained by the application of the "Roussel Law." A few words as to what voluntary effort is doing for children who have emerged from the period of infancy may not be out of place. The Parisian General Society for the Protection of Abandoned or Criminal Children was founded by M. Georges Bonjean some five years ago, and in 1880 the subscriptions given for this work did not exceed £152; but the next year the amount collected reached the respectable figure of £2240. In 1882 there was a further increase, for the subscriptions are set down at £5080. In the following year £5880 were given, and £6840 in 1884. The number of members of the Society increased from 2040 in June, 1881, to 12,648 in the present year. The work done by the Society is in due ratio to the support it has received. In February, 1883, it gave assistance and education to 700 helpless children; while at the present moment no less than 2828 children are under its protection. All these children are carefully drilled; and, while every effort is made to give them the education necessary to enable them to earn an honest livelihood, special care is taken that they should have the food and exercise necessary for the preservation of health and the development of physical strength. This work, however, though good, is not sufficiently extensive. It is not two or three thousand children, but something like a hundred thousand, who need such protection. Nevertheless, the Parisians are to be congratulated

on taking the initiative in this matter, instead of relying solely on the State. The French charities are not to be compared in importance and extent with those of England. Till recently the form of government did not tend to develop self-reliance, and the lack of this quality is accountable for many evils. Little sanitary improvement would have been accomplished in England if pressure had not been brought to bear upon abuses by private individuals; and, to progress, the French must take such questions into their own hands without waiting for the Government to set the example.

ARMY RECRUITING IN 1884.

THE annual report of the Inspector-General of Recruiting has been presented to Parliament earlier than usual, and in consequence does not contain many of the tables relating to the physical condition of the recruits. These will shortly be issued in the Annual General Return. In the meantime, we may note that in 1884 the large number of 64,853 recruits were medically examined, of whom 27,807 were rejected, being in the ratio of 429 per 1000; but this includes a number, not stated, rejected as under height, which is clearly a military, not a medical cause. The standard of minimum age was eighteen; height, 5 ft. 4 in.; chest measurement, 33 in.; weight, 115 lb. "The chest measurement and weight according to height is left to the discretion of the medical officer, who is governed by the appearance of the man, by his physical condition, and his power and prospect of development." Of the 35,653 who joined the service 12,896 volunteered from the militia. General Bulwer states, as the result of personal visits to several of the recruiting districts, that, in his opinion, the quality of the recruits compared with that of former years is "by no means unfavourable to the men of the present day;" and this opinion appears to be in accordance with that of the officers commanding regimental districts and auxiliary artillery districts, with a very few exceptions; it is also to some extent borne out by the fact that in 1884 the proportion of men invalided during their first year of service was 9·7 per 1000, while the average of the preceding four years was 12·0 per 1000. In addition to the recruits raised for the army, there were 36,007 enlisted into the militia, but we are not informed how many presented themselves for enlistment and were rejected. As we have already seen, the number transferred from the militia to the general service was equal to one-third of those passed into the militia. When the returns are published, we shall probably be able to extract from them additional interesting information respecting the physique of the men who are being added to the strength of the army.

SEWER MEN AND TYPHOID.

DURING the reading of the report of the medical officer, Mr. M. A. Adams, to the Maidstone Local Board, some questions were asked about a man who died of typhoid fever who had been employed in repairing a sewer. Mr. Adams said that the man had told him that he was more subjected to the effluvia than the bricklayer to whom he had to hand the bricks. He added that some one must do this sort of work, and he did not think any blame attached to any one. One of the members of the board stated that "at the last outbreak of cholera in London the Board of Works furnished their sewer men with some kind of drink, and it was remarkable that although these men were working constantly amongst obnoxious smells, none of them were attacked with cholera." He then moved a resolution requesting the medical officer to suggest to the surveyor some drink or other preventive which would render the sewer men less liable to infectious disease. Mr. Adams said it was a difficult thing to be asked. People fancied that he himself had something in his pocket which prevented him from contracting small-pox &c. He, however, had nothing of the kind any more than any member of the board. If he knew of anything which would be of service to the sewer men, he would make use of it at once. The days when doctors carried a gold-headed cane containing fragrant essences for antiseptic purposes are past, and it would be well for members of local boards and others to understand that disease germs such as are contained in typhoid stools ought to be disinfected before they reach the sewer, which should itself be subjected to the action of similar agents, and, above all, thoroughly well ventilated through properly constructed shafts. There would then be less faith in prophylactic draughts, camphor lockets, and other charms for the prevention of infection.

OVERTIME IN GOVERNMENT ESTABLISHMENTS.

THE Factory Acts being liable to suspension in Government establishments, the men and boys in Woolwich Arsenal have of late been working overtime, the men working from 6 A.M. to 9 or 10 P.M., many of them Saturday afternoons and Sundays; the boys from 6 A.M. to 8 P.M., but not Saturday afternoons or Sundays. It is doubtless more convenient to the authorities to make the same persons work long hours than to engage additional hands, who must necessarily be more or less new to the work and who would require more looking after. But such protracted labour tells heavily on the health, and it is known to neighbouring practitioners, and doubtless to the arsenal medical officers also, that some are breaking down under the strain. The hours of labour permitted by the Factory Acts ought to be respected, in spirit at least, even in Government establishments in times of extra pressure. It seems most anomalous that in such an establishment as Woolwich Arsenal a boy may be compelled to work for such a number of hours that his health may become permanently impaired while a private manufacturer who ventured to treat him i the same way, no matter under what emergency, would be heavily fined. We understand that no work was done last Sunday, and that the excessive overtime has been diminished during the present week by order of Colonel Barlow.

THE METAPHYSICS OF NATURAL HISTORY.

A DEMONSTRATION of the alliance between religion and science, though to some it may appear to be difficult or hopeless, is, as we have already had occasion to remark, by no means impossible, however the terms of its exposition may vary with our fluctuating knowledge. We have here two doctrines, each professing to explain the cause or causes, the working, the objects, and the whole meaning of things as they exist around us, and of our own being, and each having for its more or less direct intention the education and improvement of that being. The one offers to us, as it were, by a mystic conception a statement of the living sense, the spirit or essence of that which we call Nature—namely, that good and God are in it, and therefore it exists and prospers; that failure, decay, and physical and moral bankruptcy come about by the introduction of some flaw, some force or Power of evil. The other, limiting its view chiefly to material objects and the methods of their actions, founds its maxims upon ascertained laws and their effects, but still it teaches the same essential facts; and while it may leave out as unproved the character of their primal cause, it cannot ignore this, nor deny that all its subject matter shows the efforts of design. It is in the consideration of such design and all that it implies that natural history as a study reaches its highest philosophical point, and even acquires a moral function above that of intellectual training, in its revelation of the mind and character of a divine Being. It has always appeared

to us that science, by revealing many proofs of adaptation in animal and vegetable life, has fortified, instead of undermining, the structure of religious belief. Where there is adaptation there must have been these necessary antecedents, a reason for it, and a mind to perceive and conform to that reason. It is incredible that the many and varied forms of matter with which we are familiar should have been the outcome of a mere chance jostling among the elements of chaos. Matter may be moulded by circumstances in obedience to some method, but there is nothing to show us that method is itself an inherent property of matter. It would rather seem, as has been ably stated in a pamphlet recently published by Dr. Stephen Monckton, that there is within all natural action an intelligent will-force which can and does interest itself in every atom concerned in the great changes of evolution, presiding over its creative origin and further history, and exercising a single and beneficent, though not a uniform, influence among the changing needs of organic and inorganic bodies, of the animalcule and of man, of health and disease, of historic races, and of the moral principles engrafted in human minds. According to Dr. Monckton, this influence must be incorporate with its subject material. He argues on this point not without reason, that such an all-directing will-force may have personal attributes, and be as fully in accord with the words of Scripture as is the idea of a personal but omnipresent God; while this presentation of an ancient belief must aid the scientific mind by affording, at least, an approximately satisfying definition of the Divine nature.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

AT the meeting of this Society next Tuesday there will be a discussion on Cholera, to be introduced by a paper from the President. Microscopical specimens and cultivations by Drs. Klein, Gibbes, Watson Cheyne, Heron, and Professor Warden will be on view, and the greater part of the evening will probably be occupied with etiology. There will, in all probability, be an adjournment of the debate to an extraordinary meeting on Tuesday, March 31st, when the pathological and therapeutical aspects of the subject will be more especially discussed. Amongst those expected to take part in the discussion are Sir H. Acland, Mr. Watson Cheyne, Dr. Chevers, Sir J. Fayrer, Dr. Gibbes, Dr. Heron, Sir Guyer Hunter, Mr. V. Horsley, Dr. Klein, Dr. Lewis, Mr. Macnamara, Dr. Geoffrey Marsh, Inspector-General Murray, Dr. Pye-Smith, and Professor Warden.

THE CONSTITUTIONAL TREATMENT OF UTERINE DISEASE.

THE paper read at the last meeting of the Medical Society brought together the alleged conflicting elements of neurology and gynæcology. The impression seems to have got abroad that Dr. C. Allbutt in his Gulstonian Lectures had denounced the physical examination of women as well as the local treatment of uterine disorders. We were not aware, and we were confirmed in our impression by the speech of Dr. Allbutt last Monday, that he had done anything of the kind. It is true that Dr. Allbutt considered that some cases of disease in which the uterus was also involved were treated on an entirely wrong plan, and to this point he still adheres. We must acknowledge that the position taken up in the Gulstonian Lectures last year seemed to us to be most logical, and may be briefly put thus: The uterus may be diseased primarily, and may then cause disease of the nervous system; the nervous system may be affected in the first place, and the uterus involved secondarily; the uterus may be diseased alone without giving rise to any nervous symptoms; the nervous system may be involved without causing uterine disorder.

LYING-IN HOSPITAL MORTALITY.

THE mortality of lying-in hospitals used to be a matter of just reproach. It promises to become so low as to excite the emulation of private practitioners. The report of the General Lying-in Hospital of York-road, Lambeth, for the year 1884 is before us, and calls for our hearty congratulations to the committee, and especially to the medical staff. The charity not only provides for the in-door accommodation in confinement of married women, but has an out-door branch of work; and under both heads the results are very remarkable. There were of in-patients 334, of whom only one died; and of out-patients 741, of whom none died. The medical report is modestly short. We could have wished for more information as to the methods by which such good results have been obtained. We may surmise, from Sir Joseph Lister's name as that of the consulting surgeon of the hospital, that antisepticism is the secret of the success. This explanation is confirmed by the Book of Rules of Nursing, to which reference is made in the report of the medical officers of the hospital, Dr. John Williams and Dr. F. H. Champneys, in which antiseptic injections figure largely. According to this manual every lying-in patient is douched night and morning, until the lochia have ceased for two days in succession, with an antiseptic solution of perchloride of mercury (1 in 2000 parts) at a temperature of 110°. Besides this measure, every precaution is taken, by ventilation and otherwise, to preserve the sweetness of the atmosphere, and the purity of hands, instruments, bedding, &c. The hospital is further useful as a training school for nurses, and in this capacity is in demand by an increasing number of candidates year by year. The institution seems in every way well worthy of support.

THE CAMDEN TOWN TRAGEDY.

AN inquest was held by Dr. Danford Thomas at Crowndale Hall, Crowndale-road, on March 11th, respecting the death of Charles Wheaton, who was alleged to have been shot by a fellow-lodger named John Rose. It transpired that the deceased and the supposed murderer were scarcely known to each other, and no motive could be found for the commission of the crime. We understand the prisoner has more than once been confined in a lunatic asylum, but as the case is *sub judice* we forbear commenting on its merits. From the evidence it seems that Wheaton was attacked whilst in bed, and that having received several revolver shots he rushed into the street. On his admission to the London Temperance Hospital it was found that he had four wounds, apparently produced by bullets, one each on the head, the face, the chest, and abdomen. It was surmised at first that the shot which struck the tenth left costal cartilage had travelled along the rib to the side of the spine, where it was found and extracted; but later, when symptoms of peritonitis supervened, it became apparent that the abdominal cavity had been penetrated. Two other bullets were removed during life, one from behind the left ear and the other from the sternum. The patient died on the third day. At the post-mortem examination it was found that the bullet which produced No. 1 wound struck the skull two inches and a half behind and half an inch above the upper attachment of the left ear, immediately over the lower part of the parieto-occipital suture. It had then passed forwards for about an inch. The hair was singed. The bone was not fractured, but a subjacent convolution of the brain was bruised. No. 2 wound consisted of a trench passing obliquely downwards and forwards on the left side of the face, the groove deepening from above downwards. The upper extremity of the wound was situate one inch and three-quarters in front and one inch below the external auditory meatus, and the adjacent portion of skin was peppered with large grains of powder. In a line

with the foregoing, and clearly made by the same missile, was No. 3 wound, over the middle of the sternum on a level with the lower border of the first costal cartilage. It passed downwards, backwards, and to the right, and ended opposite the first intercostal space, the sternum at this spot being slightly ploughed up. There were no powder marks around. No. 4 wound, the fatal one, was on the left side of the abdomen. The tenth costal cartilage was shattered. The omentum and jejunum were perforated, and the bullet having traversed the psoas muscle had passed backwards between the transverse processes of the second and third lumbar vertebræ and became arrested beneath the skin. There was general peritonitis, but the inflammation was most marked along the track of the bullet. Apertures corresponding in position with the orifice of the wound in the abdomen were found in the two shirts worn by the deceased man at the time of the affray; that in the outer shirt was surrounded by a blackened zone some two inches in depth, whilst the one in the inner was marked by a much narrower and fainter ring. No. 5 wound consisted merely of a furrow on the outer side of the left little finger, where the soft tissues had been torn up and stained by the bullet. With the exception of the last, all the wounds were evidently caused by a revolver fired close to the body; and the first two, though it was possible they might have been self-inflicted, could only have been so with the hand in an unusually strained position. For the wound behind the left ear to have been self-inflicted the shot must have been fired with the left hand. The hæmorrhage and signs of inflammation about all the wounds showed the latter were received during life. The jury returned a verdict of death from peritonitis following a penetrating wound of the intestine, and held the prisoner chargeable with having caused the death of the deceased. Subsequently the prisoner was committed by the magistrate at the Clerkenwell Police-court to take his trial for murder at the next sessions of the Central Criminal Court.

THE PHYSIOLOGICAL ACTION OF HYOSCINE.

DR. H. C. WOOD of Philadelphia has recently published in the *Therapeutic Gazette* a series of observations on the physiological action of hyoscine. It has long been known from the researches of Ladenburg and others that henbane contains two active principles, amorphous hyoscyamine—which is quite distinct from true or crystalline hyoscyamine—and hyoscine, an alkaloid yielding crystallisable salts. Dr. Wood in his observations has employed the hydrobromate almost exclusively, but in a few cases he resorted to the hydriodate. He finds that frogs are sensibly affected by $\frac{1}{3333}$ of their weight of hyoscine, but that at least $\frac{1}{1000}$ is necessary to produce a toxic action. The symptoms are very uniform. They consist of an increasing sluggishness, with a progressive loss of voluntary movement and a corresponding depression of the reflex activity, but without marked loss of sensibility. Death is brought about by failure of breathing, the heart beating for a considerable time after arrest of respiration. From this it would appear that in the case of the frog hyoscine acts as a motor-spinal depressant, killing by arresting respiration probably through a central influence. Any action that may be exerted upon the circulation is of a depressant character, but is so slight as to be of no importance. From a number of observations made on mice, cats, and other animals, it is seen that hyoscine acts upon mammals "chiefly as a spinal depressant; that it is a centric respiratory depressant, causing death by asphyxia; that it has very little effect on the circulation, what influence it exerts being in the normal animal set aside by the asphyxia it produces; that it does not paralyse the pneumogastrics; that in enormous doses it paralyses the vaso-motor system, and that on the heart itself its influence is very feebly depressant." Several experiments were made on the resident medical staff of the Philadelphia Hospital, and it was found that $\frac{1}{100}$ of a grain injected hypodermically always produced well-marked constitutional effects. The symptoms usually came on in about ten minutes, and consisted of dizziness, impairment of vision, dryness of the mouth, and an inability to walk straight. In some instances this was followed by deep sleep, lasting for many hours. Observations are being made on the clinical uses of hyoscine and it is anticipated that valuable results will be obtained especially in the treatment of certain forms of mania.

ALLEGED SUCCESSFUL TREATMENT OF HYDROPHOBIA.

A NATIVE surgeon, M. Nursimula, has written a letter to the editor of the *Times of India*, from which it would appear that he has treated successfully a case having all the symptoms of hydrophobia. The treatment adopted was the subcutaneous injection of a sixteenth of a grain of atropia. The breathing became infrequent (12 per minute), and the pulse slowed to the rate of 50 per minute. A quarter of a grain of morphia was injected hypodermically as an antidote to the atropia, and this was repeated several times. The symptoms disappeared the third day after the onset of the malady. The patient was a soldier, aged twenty-four, who had been bitten by a dog the week before the symptoms resembling hydrophobia appeared. If the case were one of hydrophobia, it must be allowed that the period of incubation was very short; the dog is not stated to have been mad, and it must not be forgotten that the presence of symptoms closely resembling, if not identical with, hydrophobia, do not *prove* that the case was one of genuine rabies.

FEES FOR NOTIFICATION OF INFECTIOUS DISEASES.

THE Health Committee of Birmingham have had under consideration the question of fees for the notification of cases of small-pox and scarlet fever, and have decided upon the following scale, to take effect after the 31st inst.:—"1. For the notification of cases where the patient is not removed to the borough hospital, 2*s.* 6*d.* 2. For the notification of cases where the patient is removed to the borough hospital, 5*s.* 3. For the notification of the existence of either of the diseases where more than one member of a household is affected at the same time, only a single fee will be paid, unless the patients are removed to the borough hospital; the fee of 5*s.* will be paid for each person so removed."

"DEATH AND THE DOCTOR."

OUR contemporary, the *Norwich Argus*, devotes a leader to the expression of its disapproval of the views of the coroner, Mr. Bignold, and of Dr. Doyle of Norwich, in reference to a case in which Dr. Doyle had been summoned out of his bed to testify to the death of a man who had expired in the night "plainly from apoplexy the result of an indigestible supper." We have not the full particulars of the case before us, so we write with some hesitation. But neither had the coroner, nor, for that matter, the *Argus*. We must say that the views of our contemporary on the respect due to the event of death (in which we entirely concur) would have been better enforced by descanting on the defects of the inquiry, rather than by reflecting on the doctor who left his bed to see the dead man and who was quite within his rights in complaining of the heartless want of public provision for the payment of medical men who do innumerable acts of humanity cheerfully and gratuitously in the dark hours of winter nights when their newspaper

critics are fast asleep. It is slight atonement for the *Argus's* strictures on Dr. Doyle that it devotes a line or two to the cheap praise of a noble and disinterested profession. The profession has been too much put off in this empty way. It will no doubt continue, as will Dr. Doyle, to act in the night as in the day. But that does not acquit the public and organs that should guide the public to a better recognition of their duties in regard to acts of mercy done in the night. We cannot conclude without a word on the unsatisfactory and inadequate inquiry into this case. The death of a human being unexpectedly in the night disposed of on the easy theory of an indigestible supper! This is disrespectful alike to life and to death. The theory has no basis, apart from a post-mortem examination, but it is flippantly adopted by our contemporary, who is in haste to devote a whole column of abuse to the doctor who left his bed to see the dead man.

OBSTETRICAL SOCIETY OF LONDON.

ON the 4th inst. Dr. Potter took the chair as President for the first time since his election, in succession to Dr. Gervis. There was a large attendance to hear the presidential address, which was listened to with marked approbation. After alluding to the wish of Dr. Gustavus Murray to postpone his candidature and not to hold office on this occasion, and also to the difficulty of following so judicious and so popular a president as Dr. Gervis, Dr. Potter reviewed the work of the Society and its objects, which he characterised as, first, political and social, and, secondly, scientific. He then gave suggestions for work in the future, and quoted Dr. West's introductory address of 1877 as to the position to be aimed at by obstetricians—"not that of mere specialists, ... but rather that of sound physicians and able surgeons, who for the public good have superadded to their general knowledge a particular acquaintance with certain departments of their art." He then expressed disapproval of the recent tendency to excessive local and surgical treatment of the diseases of women, to the exclusion of the constitutional aspect. The rest of the evening was occupied by the adjourned debate on extirpation of the uterus for cancer, arising from a paper by Dr. W. Duncan. The general sense of the whole debate seemed to be that for cancer of the cervix the operation is not justifiable, while for cancer of the body its justifiability is doubtful. We do not expect either operation to take root in England.

POISONING BY COLCHICUM.

A CASE of suspected poisoning by colchicum is just now attracting some attention in Paris. The accused is a person named Ribout, an artificial flower maker; and his wife having died suddenly, it was suspected that he had made away with her in order that he might marry his mistress. The remains of Madame Ribout were accordingly disinterred, and were submitted to a long and careful examination by M. L'Hôte, the chemical expert attached to the Paris Criminal Court. It is said that indications of the presence of colchicum were discovered, and that little doubt could be entertained that the unfortunate woman met her death from the administration of poison. It has long been known that meadow saffron is a powerful toxic agent. As far back as 1839 the case was recorded of a gentleman who took an ounce and a half of colchicum wine by mistake, and died in four hours. The symptoms are usually severe, and are fairly characteristic. At first there is burning pain in the stomach, with persistent vomiting and purging, the stools being mixed with blood. Irritation of the throat and intense thirst are soon added. The patient suffers from great prostration, pain in the head, a small weak or irregular quick pulse, muscular twitchings, and severe pains in the extremities and joints. In some instances the symptoms have been not unlike those of malignant cholera. At the post-mortem examination the stomach and intestines are usually found to be greatly inflamed, and purple patches are sometimes noticed on the skin and internal organs. A curious case of poisoning by "gout pills," composed chiefly of colchicum, was recorded in THE LANCET of March 15th, 1881.

"PROBABLY APOPLEXY."

AN inquest was held at Brookfoot on March 11th, touching the death of Elizabeth Beaumont, aged forty-seven. It appears from the evidence that the deceased had been somewhat excited on account of her daughter's marriage, and that she sat down in a chair in the pantry, and passed into a comatose condition, which her relatives mistook for natural sleep. She never recovered consciousness. The medical man summoned to deceased was not called at the inquest, but the coroner seems to have acted on the report of one of the witnesses, that in the opinion of the doctor death was due to apoplexy. We have it on the authority of Mr. G. A. Farrer that he expressed no such opinion. It is to be regretted that this gentleman was not asked to give his view of the case, for, to say the least, the death was not anticipated. The verdict of the jury was consistent with the facts deposed to at the inquest. Notwithstanding, we maintain that it is desirable in all cases where the cause of death is not manifest to take the evidence of a legally qualified practitioner. If the coroner is not a medical man, he cannot be expected to have the necessary knowledge to interpret the signs and symptoms indicating the mode of death described by ordinary witnesses.

MEDICAL HEROES.

AT a medical press dinner which took place at the end of last month in Madrid, there was present by special invitation Señor Fernandez Valdes, medical officer of the steamship *Gravina*, who was the means of saving the lives of 170 of the sailors of the Philippines. An official deed was also read setting forth the heroic and self-sacrificing services rendered to the sufferers during the terrible earthquake last Christmas-day by Dr. Miguel Hernandez Lozano, district medical officer of Pinos del Valle.

A HALFPENNY A WEEK.

THE Sheerness working men appear to be under the impression that satisfactory medical attendance, medicines, splints, &c., can be really obtained not only for themselves, but for their wives and children, for a halfpenny a week per head. An enthusiastic meeting has been held to promote a scheme for a "Medical Association" on the above terms. A statement was then made that the Portsmouth Association now contains 10,000 members, who actually pay their doctors—we wonder how many—between £300 and £400 per annum. If this is a fact, we can only express our astonishment that any medical man can be found to work on such unremunerative terms.

THE SPLEEN IN SYPHILIS.

THE view advocated by Mr. Jonathan Hutchinson that syphilis may be regarded as an acute specific fever in which the various stages are much more prolonged than in the ordinary acute specific fevers is one which cannot fail to keep the mind open to the possibility of the occurrence of those phenomena which are most usually associated with specific fevers. Facts dealing with the occurrence of alterations in the size of the spleen in syphilis are of course familiar to all, but the enlargement of the organ in the early stages of acquired syphilis still remains a debateable ques-

tion in the minds of some clinical observers. In a paper contributed to the *Vierteljahresschrift für Dermatologie und Syphilis* by Dr. Avanzini of Innsbrück, the author contends that the spleen undergoes demonstrable enlargement just prior to or in that stage of syphilis when the skin and mucous membrane are the seat of the ordinary secondary manifestations. He has also observed that after treatment diminution in size of the spleen sufficient to cause the disappearance of the cutaneous and lymphatic lesions does not take place.

A DEADLOCK IN LUNACY.

WE are very glad to find that workhouse authorities are declining to allow justices of the peace to any longer use those institutions as places of detention and remand for supposed or alleged lunatics. The deadlock created will hasten the search for a key to the difficulty.

THE total death-rate of Brooklyn for nineteen years (1848-1860 inclusive, and 1871-1876 inclusive, these being the only years of which the records are in a shape to be easily analysed) from all diseases was 116,910. Of these, 21,370 were cases of death from diseases of the nervous system. Deaths from accidents befalling the nervous centres, and deaths not directly due to nervous diseases, are not included in this total. The death-rate in the city of Brooklyn from nervous and mental disease may, therefore, fairly be said to be 19·43 per cent.

WE are informed that Her Majesty's Government has consented to distribute gratuitously to each registered member of the medical profession in the United Kingdom a copy of the revised edition of "The Nomenclature of Diseases," which has been prepared with much care and labour by the Royal College of Physicians. It is expected that the work will be in the hands of the profession within two months from the present time.

THE Committee of the Maidstone Local Board which manages the Infectious Diseases Hospital report that there are now three cases of small-pox. They advise an inspection of dustbins at the backs of cottages, and a report from the inspector of nuisances of the state of drainage of all the cottages. Alderman Spencer remarked on the advantage the hospital had proved to the town, and stated that its total cost during the last six months had been only £110.

La Gazeta Medica Catalana reports the case of a young primipara of feeble constitution, who, after the second month of pregnancy, was a great sufferer from vomiting. A variety of known remedies proved useless, when Dr. Mendez advised ether irrigation or spray on the epigastrium. The effect was instantaneous; vomiting at once ceased. It recurred twice during the pregnancy, but each time yielded readily to the local ether treatment.

WITH a view of being prepared for any emergency during the ensuing summer, the Port of London Sanitary Authority have decided to acquire an additional two acres and a half of land adjoining their Hospital for Infectious Diseases at Gravesend. Under any exceptional circumstances tents can be put up on the land. It is proposed to build a powerful steam launch for the conveyance of sick persons.

THE death is announced of Dr. Angel Villar, of Matías, Knight Grand Cross of the Order Isabel the Catholic, President of the Academy of Medicine and Surgery of Salamanca.

AMONGST the sick and wounded officers who have arrived at Cairo from the front are Staff-Surgeon Drew (suffering from hepatitis), Surgeon-Major W. H. Garde (suffering from dysentery), and Surgeon J. P. Myles (suffering from simple continued fever); they are all, however, reported to be doing well. The death of Surgeon Bradshaw at Korti on the 14th inst. from enteric fever is also announced. This is the second medical officer who has fallen a victim to that disease.

THE Vaccination Officers' Association has issued a first report, from which it would seem that the Association is in an active state, and doing good work in discussing questions affecting the working of the Vaccination Acts from the important standpoint of vaccination officers. Public vaccinators, medical officers of health, and others, are eligible as honorary members.

AT the meeting of the Metropolitan Board of Works on the 13th inst., recommendations of the Finance Committee that advances of £18,000 and £86,377 be made to the Metropolitan Asylums Board at the rate of 3½ per cent. were agreed to. The latter sum is to meet the expense of building the hospital at Winchmore-hill.

THE Rev. Henry Arnott, F.R.C.S., formerly Assistant-Surgeon and Lecturer on Pathology at St. Thomas's Hospital, has been appointed to the valuable rectory of Beckenham, in succession to the Rev. W. Cator, whose curate he formerly was. Mr. Arnott preached the sermon at Gloucester at the recent ordination.

CERTAIN new regulations for the examinations for the degree of Bachelor of Medicine of the University of Durham, to come into force on May 1st next, have been adopted, particulars of which will be given in our next issue.

WE are glad to learn from the *Boston Medical Journal* that the Index Medicus is to be continued "under the same conditions as heretofore," under the auspices of the publishing house of Parke, Davis, and Co.

THE Delegates of the Oxford Common University Fund have appointed Mr. Arthur Thomson, Senior Demonstrator of Anatomy in the University of Edinburgh, to a lectureship in Human Anatomy.

A PRIVATE letter dated Heidelberg, March 9th, is reported to contain an announcement of the serious illness of Von Bunsen, the distinguished chemist.

VOLUNTEER MEDICAL STAFF CORPS.—This corps is to be enrolled on April 1st. For the past year, however, the members of this corps have been drilling and acquainting themselves with the many duties devolving upon them. They are so far advanced, that it is believed the greater portion of the members of the corps will be pronounced efficient when enrolled. On Saturday, March 14th, the corps paraded, 300 strong, at Wellington Barracks, when it was inspected by Sir Guyer Hunter, K.C.M.G., in the presence of the Director-General of the Army Medical Department, Surgeon-General McKinnon, Brigade Surgeon Don, General Elkington, General Hall, and others. The corps, under the command of Mr. Cantlie, executed battalion movements with precision, and the stretcher drill was excellent. Seven companies were on parade, drawn up in the order of their enrolment—viz., Charing-cross, University, London, St. Bartholomew's, Middlesex, St. Thomas's, and Guy's. Two companies of the corps are going to take part in the Brighton review. One company, sixty strong, has volunteered its services for Egypt, but the Army Medical Department does not require their services at present.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6189 births and 3779 deaths were registered during the week ending the 14th inst. The births were 375, and the deaths 152, above the average weekly numbers during 1884. The annual death-rate in these towns, which had not exceeded 21·4 and 20·6 per 1000 in the preceding two weeks, rose last week to 22·5. During the first ten weeks of the current quarter the death-rate in these towns averaged 22·5 per 1000, against 24·7, the mean rate in the corresponding periods of the nine years 1876-84. The lowest death-rates in these towns last week were 13·5 in Birkenhead, 15·5 in Portsmouth, 16·0 in Hull, and 16·8 in Brighton. The rates in the other towns ranged upwards to 27·6 in Newcastle-upon-Tyne, 28·6 in Manchester, 33·9 in Oldham, and 48·3 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 377 and 395 in the previous two weeks, further rose to 398 last week; they included 129 from measles, 119 from whooping-cough, 41 from diarrhœa, 31 from scarlet fever, 31 from "fever" (principally enteric), 27 from small-pox, and 20 from diphtheria. No death from any of these zymotic diseases was recorded last week in Brighton; whereas they caused the highest death-rates in Bristol, Cardiff, and Sunderland. The highest death-rates from measles occurred in Huddersfield, Cardiff, and Sunderland; from whooping-cough in Preston and Bristol; from scarlet fever in Halifax and Wolverhampton; and from "fever" in Norwich. The 20 deaths from diphtheria in the twenty-eight towns included 8 in London, 3 in Liverpool, 2 in Nottingham, and 2 in Oldham. Small-pox caused 45 deaths in London and its outer ring of suburban districts, 3 in Manchester, 1 in Bradford, and 1 in Cardiff. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the preceding three weeks from 1223 to 988, further fell last week to 898; the cases admitted were 104 last week, against numbers declining from 255 to 94 in the previous four weeks. The Highgate Small-pox Hospital contained 92 patients on Saturday last, 16 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 384 and 374 in the preceding two weeks, rose last week to 455, but were 30 below the corrected weekly average. The causes of 96, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leeds, Leicester, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Hull, and Wolverhampton.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 24·6 and 22·8 per 1000 in the preceding two weeks, rose again to 24·4 in the week ending the 14th inst., and exceeded by 2·3 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 16·6 in Perth and 17·5 in Leith, to 24·3 in Aberdeen and 29·9 in Glasgow. The 595 deaths in the eight towns included 22 which were referred to whooping-cough, 22 to measles, 17 to diarrhœa, 13 to scarlet fever, 8 to diphtheria, 6 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 88 deaths resulted from these principal zymotic diseases, against 82 and 71 in the preceding two weeks. These 88 deaths were equal to an annual rate of 3·6 per 1000, which was 1·3 above the mean rate from the same diseases in the twenty-eight English towns. The 22 deaths from whooping-cough showed an increase of 3 upon the number in the previous week, and included 9 in Glasgow, 4 in Edinburgh, and 4 in Leith. Of the 22 fatal cases of measles, 21 occurred in Glasgow. The 17 deaths attributed to diarrhœa also exceeded the numbers in recent weeks. Ten of the 13 fatal cases of scarlet fever and 5 of the 8 of diphtheria were returned in Glasgow. The 6 deaths referred to "fever" included 2 in Glasgow and 2 in Greenock. The deaths referred to acute diseases of the respiratory organs in the eight towns, which were 122 last week, were 5 above the number returned in the corresponding week of last year. The causes of 93, or nearly 15 per cent., of the deaths registered in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 30·3 and 32·7 per 1000 in the preceding two weeks, further rose to 39·5 in the week ending the 14th inst. During the first ten weeks of the current quarter the death-rate in the city averaged no less than 33·4 per 1000, the mean rate during the same period not exceeding 21·5 in London and 20·2 in Edinburgh. The 267 deaths in Dublin last week showed a further increase of 46 upon the high numbers returned in recent weeks, and included 11 which were referred to measles, 8 to "fever" (typhus, enteric, or simple), 5 to diarrhœa, 4 to whooping-cough, 2 to scarlet fever, and not one either to small-pox or diphtheria. Thus, 30 deaths resulted from these principal zymotic diseases, against 18 and 27 in the preceding two weeks; they were equal to an annual rate of 4·4 per 1000, the rate from the same diseases last week being but 2·1 in London and 1·9 in Edinburgh. The 11 fatal cases of measles in Dublin, which had been 8 and 10 in the previous two weeks, further rose to 11 last week. The 8 deaths from "fever," and the 5 from diarrhœa, also showed a further increase upon recent weekly numbers. The fatal cases of scarlet fever, on the other hand, were fewer than in any previous week of this year. Three inquest cases and 4 deaths from violence were registered within the city; and 94, or more than a third, of the deaths were recorded in public institutions. The deaths of infants showed an increase, and those of elderly persons considerably exceeded the numbers in any previous week of this year. The causes of 37, or nearly 14 per cent., of the deaths registered in the city last week were not certified.

HEALTH CONDITION OF SOUTHPORT.

A voluminous pamphlet has recently been published by Dr. Strethill H. Wright, the main object of which seems to be to warn the ratepayers of Southport that the vital statistics of that place issued by the sanitary authority are untrustworthy, and give a far too favourable impression of its sanitary condition. Dr. Wright asserts confidently that the present population of Southport is considerably over-estimated, the effect of which would undoubtedly be to under-state the death-rate. It would be out of place to attempt a discussion of the main point in dispute—namely, the present population of Southport; but some of the issues raised by Dr. Wright are of more than local interest, bearing as they do upon the construction of local vital statistics, and upon their value as a test of sanitary condition. We have often found reason to complain of defects in the reports of medical officers of health similar to those pointed out by Dr. Wright in the reports issued by Dr. Vernon, the medical officer of health for Southport. It is, in the first place, essential that the method employed for estimating the population of each sanitary district should be clearly described. Now it appears that the enumerated population of the Borough of Southport was 18,086 in 1871, and had increased to 32,206 in 1881, and Dr. Vernon's estimate for the middle of 1883 is stated to be 35,065. There can be no doubt that Dr. Vernon should describe his method of arriving at this estimate, which is clearly not arrived at by the Registrar-General's method of assuming that the rate of increase that prevailed between the last two censuses has since been maintained. The rate of increase of population in Southport during the last intercensal period was exceptionally large, and we are not in a position to support or to deny Dr. Wright's assertion that since 1881 there has practically been no increase, but all who are interested in the vital statistics of Southport are bound to know upon what principle the population of the borough is officially estimated. Dr. Wright next asserts that Dr. Vernon excludes from the mortality statistics of the borough the deaths of borough residents recorded in the Union Workhouse and in the Fever Hospital, both situated outside the borough. There can be no doubt that this is unsound both in theory and practice, and is none the more defensible because other reports than those of Southport err in the same direction. Another objectionable feature of the Southport reports, fairly criticised by Dr. Wright, is what Dr. Vernon calls the "local" rate, obtained by the elimination of a certain number of deaths, of "bad lives imported." For instance, it is stated that of 568 deaths in Southport in 1881, 106 were of persons said to have resided in Southport under one year;

Dr. Vernon, by some method of estimate not stated, concludes that 90 of these were of "bad lives imported," thus making a large reduction in the death-rate, but one which is open to grave objection. When Dr. Vernon leaves out of account the workhouse deaths belonging to his population and deducts a large proportion of deaths on very doubtful authority, he appears needlessly to invite incredulity as to the value of his statistics. Dr. Vernon is not alone in his attempt to improve his death-rate by a liberal correction for deaths of visitors. This is a tempting but a dangerous practice, and should at any rate not be attempted unless the method of correction is most precisely described. The importance of health reputation to Southport is so great, and the impossibility of constructing sound vital statistics without a trustworthy estimate of population is so patent, that the Town Council, as the sanitary authority of the borough, should be induced to undertake a local census, which has in other places been carried out at a very moderate cost.

THE SERVICES.

THE Army medical officers recently inspected, at Woolwich Arsenal, one of the two Döcker tent hospitals supplied for use in Suakim. These tents or huts are constructed by Messrs. Christoph and Unmack of Copenhagen, and appeared to meet the approval of the medical staff by their sanitary arrangements and general suitability for a hot climate. Each tent or hut is 72 ft. long by 20 ft. wide, its height being 13 ft. Each tent has accommodation for fifty patients, forty-four in two large wards at each end, and six in a private ward.

The Assistant Professorship of Surgery at Netley having been vacated by Surgeon-Major R. Tobin, who has been ordered on foreign service, the duties will for the present be performed by Surgeon-Major O. Codrington, M.D. It is understood that the appointment will be conferred upon Surgeon-Major C. H. Y. Godwin, late medical officer of Woolwich Arsenal, where he was very successful in applying the antiseptic system to the numerous severe injuries with which he had to deal.

Surgeon-General J. Irvine, Principal Medical Officer to the Army of Occupation in Egypt, has been selected for a similar position to her Majesty's forces stationed in Madras.

ADMIRALTY.—The following appointments have been made:—Surgeon Francis G. Wright, to the *Bullfrog;* Charles G. Maclagan to be Surgeon and Agent at Berwick and Cheswick.

ARTILLERY VOLUNTEERS.—1st Norfolk: Acting Surgeon George Henry Cressey resigns his appointment.

RIFLE VOLUNTEERS.—1st Forfar (Dundee): Acting Surgeon William Gibb resigns his appointment.

Correspondence.

"Audi alteram partem."

CHLOROFORM *v.* ETHER.

To the Editor of THE LANCET.

SIR,—My attention has only just been called to a letter from Mr. George E. Walker of Liverpool in your issue of last week. In this letter Mr. Walker states, as his opinion, that in the production of complete anæsthesia there is little or no difference between chloroform and ether, whilst in the after-effects, especially as regards vomiting, nausea, and depression of spirits, chloroform is much superior to ether. Now, this is exactly contrary to what I have been endeavouring for years to demonstrate, and I cannot see on what grounds Mr. Walker bases his opinion, which I not only consider erroneous as to fact, but dangerous in the extreme. May I point out to him that the great difference between the two is that ether is a cardiac stimulant, whilst, on the other hand, chloroform is a depressor of the heart's action; that the former never kills by stopping the heart, whilst, on the contrary, the principal cause of death in fatal chloroform cases is the sudden cessation of the heart's action. I do not deny that dangerous symptoms occasionally arise during the administration of ether; but when these do occur the respiratory organs are affected and there is plenty of time for the proper application of remedies, these symptoms being rarely followed by death. In the fatal cases of chloroform administration death begins at the heart, and is instantaneous. If Mr. Walker consults the statistics of fatal cases, he will find that the proportion of deaths in chloroform administration is about 1 in 4500, whilst that of ether is only 1 in 20,000. Granted that there is more vomiting, nausea, and depression of spirits, even then I reply that these trifling ailments do not counterbalance the great advantage of the safety of the one anæsthetic over the other; moreover, I affirm that, if ether be rapidly given so that a small quantity suffices to produce anæsthesia, then the insensibility is not followed by those after-effects of which he complains.

I am not fond of rushing into print, but I plead as my excuse my sincere desire that your columns should not be the means of propagating the suggestion that chloroform is as safe to administer as ether.

I am, Sir, yours obediently,

Maddox-st., March, 1885. WOODHOUSE BRAINE, F.R.C.S.

"WHAT WAS THE CAUSE OF DEATH?"

To the Editor of THE LANCET.

SIR,—My attention has just been directed to Mr. Knight's communication in your issue of the 7th inst. In consequence of the tone of his letter, and of its many inaccuracies, I desire the privilege of stating my version of the case, and of placing before the profession some additional facts which were not mentioned at the trial.

At 10 P.M. on Jan. 5th I had an interview at the Southern Hospital with the senior house-surgeon and Mr. Knight, and I gave to Mr. Knight a letter which I had received from the solicitor for the defence, in which it was stated that I had the coroner's permission to examine the body of Johnson. Owing to the hesitation exhibited by Mr. Knight to permit the examination, I suggested that he should think the matter over, and I arranged to meet him at 11 A.M. on the following morning. I arrived at the hospital within five minutes of the time specified, and was informed by the porter that Mr. Knight had gone out. After some trouble I found Mr. Gordon, the senior house-surgeon, in one of the wards, and he kindly left his work and came to the post-mortem room, and remained with me during my examination of the body.

The following is a copy of Mr. Knight's depositions before the coroner:—"Externally, I find on the top of the head two wounds, one of them an inch in front of the centre, and an inch to the right of the middle; it was pretty clean cut, but with slight contusion. It was a small wound half an inch long and a quarter of an inch deep. An inch behind and two inches to the right of this wound I found another wound similar in every respect to the first. There was a third cut on the chin over the lower jaw. This wound was in the shape of the letter Y, about three-quarters of an inch long by one-third of an inch in depth. I found some bruises; one over—i.e., above the left eye, and another just below or under the right eye. He had also an abrasion on the middle of the nose. The right eyeball itself was bruised. He had a slight abrasion of the fore or first finger of the right hand, and some blood on the other fingers. He had a small abrasion two inches below the right elbow. He had a little blood on the left hand, but no injury. On the right leg there was a small abrasion four inches below the knee. I have now described all the injuries to the deceased outwardly visible. On opening the body I found all the organs pretty healthy. There was slight congestion of all the organs, but their state was consistent with perfect health. There was no injury at all to the bones of the head or body. The cause of death in my opinion, judging from what I have heard to-day from the witnesses and from my post-mortem examination, has been concussion of the brain, due to the blows on the head. There was no natural cause present sufficient to account for death. The condition of the organs gave no indication at all of alcohol."—By Mr. Maddin: "The deceased's lungs were slightly congested. The heart was quite healthy. It is quite possible that if the deceased had been on a heavy spree of drink, the congestion of his lungs might be in consequence of that."

The following are extracts from my depositions before the coroner:—"I substantially agree with Mr. Knight's evidence as to the external injuries upon the deceased. I differ from

him as to the internal condition of the body. The main bloodvessel of the heart, the aorta, has extensive and long-standing disease. The left lung is almost completely semi-solid. The right lung is also extensively semi-solidified. I do not think the solidified condition of the lungs is due to post-mortem changes from lapse of time. I found all the organs well preserved, and quite fresh. I could not be positive as to the cause of deceased's death. In the absence of any injury at all the condition of the deceased's lungs would quite account for death. I would attach more importance to the butting spoken of than to any of the other injuries. A man in deceased's condition to receive a severe butt in the stomach would be likely to suffer from a serious nervous shock, which would affect the heart's action and accelerate death. In the condition of the deceased's heart and lungs the effects of struggling would be sufficient to cause death."

Additional facts and remarks.—A calcareous plate about an inch long was transversely embedded in the aorta embracing the openings of both coronary arteries. Yet Mr. Knight, in the coroner's depositions, says that "the heart was quite healthy," and makes no reference whatever to this condition of the aorta. After my evidence he appears before the magistrate, and in these depositions he says, "There was extensive degeneration of the aorta."

No section of any kind whatever had been made of the left lung when I examined it. This condition, as well as the calcareous plate, I pointed out to Mr. Gordon, and yet Mr. Knight informs us that "the examination occupied three hours, and every organ and every cavity was carefully examined," and that the honorary surgeon and Mr. Knight's two colleagues were present during that time. I confess I cannot believe that Mr. Gordon would spend three hours examining a body and neglect to examine one lung and make only one section through the other, which was distinctly diseased. Nor shall I believe that Mr. Little and Mr. Gordon will state that the lungs of the deceased were only "slightly congested," and that the condition of all the organs was consistent with "perfect health." Why did Mr. Knight secure at the assizes the services of his junior, Mr. Dixon, instead of his senior, Mr. Gordon? I know that an urgent message was despatched for Mr. Little, but he was indisposed, and unable to appear.

The deceased was forty years of age and kept a brothel. All the witnesses to the assault are unfortunates and lodged in his house. One witness speaks of blows by a belt buckle, another of a ginger-beer bottle, and a third of butting. On finding such a marked divergence of opinion between Mr. Knight and myself I caused the defence to make application to the coroner for him to appoint a distinguished member of the profession to examine the body before burial. I submitted the following list—viz., Mr. Rushton Parker, Drs. Alexander, Glynn, and Cameron. The coroner would grant permission, but would not authorise any of those gentlemen to act.

Mr. Knight summons both the judge and the jury to his aid in deciding the pathological differences between us. I have no objection to this rough appeal in the absence of a better one. The prisoners were arraigned on a charge of murder, and were found guilty of manslaughter and sentenced to eighteen months' imprisonment. From these facts Mr. Knight infers that the pathological points have been decided in his favour. I have no doubt the inference is quite as scientific as his evidence.

The scraps from the daily papers which he has interlarded his letter with and the learned discovery which he has so kindly communicated to me—viz., "That the heart and the aorta were not quite the same"—I must gratefully acknowledge as tokens of good taste.

I am, Sir, yours truly,

WILLIAM WHITFORD, M.D.,
Honorary Assistant Surgeon to Stanley Hospital, and Senior Assistant Surgeon to the Liverpool Cancer and Skin Hospital.

Shaw-street, Liverpool, March 16th, 1885.

HICKS *v.* BEDFORD AND OTHERS.

To the Editor of THE LANCET.

SIR,—I have no doubt that your attention has been drawn to this case, a full report of which appeared in last week's issue of *The Times*, and from which we find that in summing up the case the judge laid down a view of the law bearing on the admission to and detention of lunatics in the insane wards of workhouses which must come in the nature of a very disagreeable surprise to many masters, relieving officers and others, who have for many years past been in the habit of admitting and sending lunatics into workhouses for detention and treatment—especially in these days, when there are so many to be found ready and anxious to bring actions against all who have more or less unwittingly sinned against the provisions of the various statutes in that behalf.

Mr. Justice Wills is reported to have stated in his charge to the jury that "there is no statutory power whereby anyone, lunatic or otherwise, can be detained in a workhouse against his will," and the lunatic wards thereof can only be utilised for the temporary reception of persons in the receipt of in-door relief who become insane pending steps being taken to remove them to an asylum. Acting on this view of the law, the jury gave a verdict of £50 damages against Mr. Douglas, the master of the Marylebone Workhouse, and of £200 collectively against four others who had been made parties to the suit brought at the instance of the plaintiff Hicks, who it was shown had been suffering from delusions at the time of her removal to the Marylebone Workhouse.

Now, this view of the provision of the statute may be, and probably is, correct; but, if so, it has neither been so understood nor acted on, for it is only a very fractional number of the inmates of workhouse insane wards who find their way there from the body of the house; by far the greater proportion come from outside, and for convenience may be arranged under the following three heads:—

1. Undoubted paupers of whose insanity the relieving officer has obtained some idea of, and who are sent into the insane wards so that a medical examination might be made of their mental condition, and, if found to be deranged, with the view to their removal to an asylum.

2. Persons not paupers who are similarly sent in on the order of the relieving officer, or, it may be, taken there by their friends, with the view to their being sent to the county asylum, the friends paying for their maintenance, or for their being transferred to Bethlem or kindred establishments, or, it may be, to some private asylum, when their relatives are sufficiently well off to pay for their maintenance.

3. Cases brought by the police. These form by far the largest proportion, and they include every grade of society, as anyone conversant with workhouse management can testify to.

Now, this condition of things has gone on unchallenged for as long as I have had to do with medical relief to the poor, and that is upwards of forty years; and that such has been the practice cannot be denied either by the late Poor Law Commissioners, the Poor Law Board, by the present Local Government Board, or by the Lunacy Commissioners. But now we are suddenly pulled up by a judicial decision, that this procedure, which has acted beneficially in the past, is altogether illegal, and as a result thereof this verdict is come to.

It has been stated that the Lord Chancellor is about to bring in a Lunacy Act Amendment Bill. If he does, I trust that the influence of your journal may be brought to bear so that the framers of the Bill may make provision to deal with the admission to and detention of lunatics in workhouses a little more in accordance with common sense and the fitness of things than now holds good.

In conclusion, I am very pleased to state that the guardians of the Marylebone Workhouse have decided to pay Mr. Douglas's costs, &c. It is true that they could not well do otherwise, seeing that he has only carried out the practice which, to my personal knowledge, has been adopted in that workhouse for the last forty-seven years.

I am, Sir, yours obediently,

JOSEPH ROGERS.

Montague-place, Russell-square, March 11th, 1885.

THE CASE OF DR. BRADLEY.

To the Editor of THE LANCET.

SIR,—My attention has been called to the comments in the medical journals upon this case, and especially to a letter from Mr. Palmer, surgeon, of Whittington, which appears in THE LANCET of Jan. 31st last. As counsel for Dr. Bradley, my opinion that he was entirely innocent will probably carry little weight, but such nevertheless is my view; and the case is an illustration of the desirability of establishing without delay a Court of Criminal Appeal. However, I do not wish to enter upon that question now, nor into the facts

of this case, which seem to me to be accurately stated in the several articles and letters which have appeared upon this subject. Of course I was thoroughly aware that epileptics are frequently subject to delusions after a seizure; and this fact I was desirous of establishing before the jury. Unfortunately no scientific witnesses had been provided on Dr. Bradley's behalf, and therefore the only professional witness upon whom I could rely for information upon this subject was Mr. Palmer, who was called on behalf of the prosecution. I was told on the morning of the trial that he might be relied upon as a witness whose scientific views were in accordance with the theory of the defence, and therefore proceeded in cross-examination to approach the questions upon which I was desirous of eliciting information. A very few questions satisfied me that Mr. Palmer, from some cause or other—nervousness possibly—was what in legal circles would be called a "hostile witness"; and therefore, with the full concurrence of my experienced junior, Mr. Richard Harris, I determined to let Mr. Palmer leave the box and rest the case upon the improbability of the prosecutrix's story in preference to examining a witness of whose evidence I had no "proof," and whose answers seemed likely to be—to say the least—uncertain in their tendency. My recollection differs from Mr. Palmer's as to what he said about the duration of the fit, but I have no note of the evidence before me. I should not have troubled you with these observations but for the fact that Mr. Palmer seems to think that counsel did not sufficiently avail themselves of his valuable testimony. No one could regret more than myself and my learned friend that the evidence of an "independent witness" could not under the circumstances be made in the least degree available for the accused, and I regret now that the novelty, doubtless, of Mr. Palmer's position in the witness-box should have prevented him from making apparent that sympathy which we now know from his letter that he throughout felt for Dr. Bradley.

I am, Sir, yours faithfully,

Temple, March 11th, 1885. MARSTON C. BUZZARD.

INSTRUMENT FOR THE REMOVAL OF FALSE MEMBRANE AFTER TRACHEOTOMY.

To the Editor of THE LANCET.

SIR,—I wish to introduce to the notice of the profession an instrument I have devised for the purpose of relieving the dyspnœa, especially common in children, which is so often fatal in diphtheria, and which is caused by the false membrane acting as a plug in the air-passages and impeding respiration. It is for use in those cases where tracheotomy has been performed, and where for some reason the oiled feather will not do its work. It can be used at any period subsequent to the operation without removing the tracheotomy tube. It does its work by suction.

The instrument consists of a glass tube, 1½ in. in superficial diameter for a child and 2½ in. in length. The opening at one end is free, and the tube is here shaped at its edge so as to fit the convexity of the throat. The other end is closed by a metal cap, from the centre of which projects a metal tube, about 1½ in. long, communicating with the interior of the glass tube. A piece of indiarubber piping about a yard in length is fitted tightly on to the metal tube. When it is wished to aspirate the trachea, the free end of the glass tube is placed over the tracheotomy wound, leaving a margin of skin between the edge of the tube and the incision all round. The tracheotomy tube is not withdrawn. Suction is applied to the free end of the indiarubber piping by means of the exhausting syringe which goes with the instrument. By these means a partial vacuum is made in the glass tube, and it adheres to the skin by atmospheric pressure. Air rushes up from the lungs through the tracheotomy tube to restore equilibrium, and the obstruction is carried along with it.

By the kind permission of Dr. Moore and Mr. Bowlby several experiments have been tried with the instrument in the post-mortem room at St. Bartholomew's Hospital, at which place I am a student. Two instances will suffice. In one case I injected about an ounce of vaseline and zinc ointment into the trachea of an adult, having previously done tracheotomy. A rather larger syringe than the one now with the instrument was used, and most of the substance injected came up through the tracheotomy tube (which was tied in) at the first stroke of the syringe. On continuing to work the syringe, the rest quickly followed. On opening the trachea it was found empty, with the exception of a small quantity of the substance, which had lodged in the upper part above the tube; some was also found in the divisions of the bronchi. In the second case, also that of an adult, the syringe used was the one now with the instrument. About three-quarters of an ounce of vaseline and zinc was injected. Two or three strokes of the syringe brought up this, which was followed by about four ounces of bloody fluid, which had flowed down into the trachea from a fractured base of the skull. The glass tube of the aspirator was filled, and about half filled a second time with this fluid. The syringe was worked pretty vigorously. On opening the trachea it was found empty. The instrument has also been experimented with in the case of a child who had died in the hospital, with similar results.

I remain, Sir, yours sincerely,

BERTRAND SHADWELL.

Bernard-street, Russell-square, Feb. 26th, 1885.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

COLLIERY EXPLOSIONS AND THEIR CAUSES.

THE recklessness displayed by miners was well pointed out the other day at the Durham County Police-court, when two lads were charged under the Mines Regulation Act with wilfully damaging a safety lamp in one of the mines in the district. The lads, it appeared from the manager's statement, who prosecuted, had taken a plate-nail and shaped it like a key; they then opened the lamp, took the wick out, and also the gauze off the lamp. The lives of about 300 men and boys were in danger through their reckless act, and it is no wonder that the manager wished them to be flogged if the law would permit, as fining them would only punish the parents. They got off, however, with a fine of five shillings, the magistrates leaving the flogging to "the discretion of the parents." Concerning the late sad disaster at Usworth, a correspondent writes to our papers to say that he cannot understand why our colliery engineers do not use Fleuss's apparatus when exploring the mines after an explosion, and points out in support of his view that at the meeting of the British Association at Montreal Mr. J. Clarke Hawkshaw, the engineer of the Severn Tunnel, described the explorations made when the tunnel was flooded in the following words: "To still further reduce the flood of water, an attempt was made by divers to shut a door across the drifting under the Severn about 330 yards from the bottom of the shaft, and thereby cut off the water flowing into the long driftway under the river. Divers in the ordinary dress failed to reach the door, but one, named Lambert, volunteered to go to it alone with Fleuss's apparatus. He succeeded in reaching the door and closing it, being under water without any communication with those above for one hour and twenty-five minutes." Mr. R. S. Newall of Gateshead, who writes the letter I refer to, says, "If a man can remain so long under water without any communication with the outer world, he can certainly walk more easily through an atmosphere of carbonic acid, and without the assistance of a mouthful of nails!—which, by the way, is one of the most ridiculous experiments I have read of for many years." Mr. Newall points out that every colliery ought to have several Fleuss's apparatus at hand, and that many a life would be saved if they were used.

A NEW AMBULANCE LITTER.

Mr. Robert H. Mushens, Secretary to the Sunderland Provident Dispensary, and the inventor of an ambulance emergency case which has met with considerable acceptance in many parts of the country, has just completed an ambulance litter which can be used in conjunction with or separately from the ambulance case. It consists of two brass tubes closed at the ends, eight feet in length. These are kept in position by two crossbars with hooks at each end, and secured with set screws. A piece of tarpaulin six feet in length runs between the crossbars, to one of which a pillow is attached, and two shoulder-straps or slings complete the arrangement.

THE CARRIAGE TAX.

The agitation against the continuance of the carriage tax has been taken up and carried on with much spirit and determination in the north of England. I have just seen a circular letter addressed to each member of the House of

Commons by Mr. John Philipson, the chairman of the movement here, in which the objections to the tax are forcibly and ably set forth. The matter is one which directly affects a large proportion of our *confrères* here and elsewhere over the country; so it is to be hoped that the efforts of Mr. John Philipson and others who are working so hard on the subject may be soon crowned with success.

THE DISTRESS IN THE NORTH.

At last there is a rift in the cloud which has so long hung over our industrial centres in the north. At Sunderland the returns showed a weekly decrease of 156 families on the distress fund. In Newcastle and Gateshead large numbers of working men are obtaining employment, and, the weather being very favourable, it is supposed that the relief operations may be soon brought to a close.

SUNDERLAND MORTALITY.

The death-rate in Sunderland last week was 48·1 per 1000, 116 deaths having occurred. In the previous week the death-rate was 41·9; in the corresponding week of last year it was 28·2. Last week there were forty-five deaths from measles, and fifteen suspected to have been caused by the disease, representing a death-rate from that cause alone of 24·9. The death-rate from ordinary causes was 23·2 per 1000. Since the commencement of the epidemic in January there has been a total of 217 deaths.

Newcastle-upon-Tyne, March 17th.

IRELAND.

(From our own Correspondent.)

ROYAL UNIVERSITY OF IRELAND.

IT is generally conceded that this University should, from the large number of its graduates, including those of the late Queen's University, possess one or two members to represent it in Parliament. It is probable that the subject will be ventilated in the House of Commons by Dr. Lyons, M.P. for Dublin, who, it is stated, has received promises of support from both Liberal and Conservative members of the House. One important fact should not be lost sight of—viz., that the number of graduates of the Royal University exceeds that reached by the London University in 1875, when that institution was accorded representation in Parliament.

JERVIS-STREET HOSPITAL, DUBLIN.

The additions to this hospital are now almost complete, and it is rumoured that a probability exists that H.R.H. the Prince of Wales will formally open the new building during his visit to Dublin early in April. The building has a frontage of 167 ft. by 100 ft. in height, and is substantially constructed. On the ground-floor, and the three storeys above, the wards are situated. It is furnished with staircases at either end, extending to the terraced roof, united to each other by glass corridors on each storey. The four main wards are of considerable extent, and the ventilation is on the most approved principles. A peculiar feature exists in the arrangement of the roofs of the buildings, which are flat, asphalted, and surrounded by a balustrade, so as to form a terrace for use by convalescent inmates of the hospital. From each storey access is obtained to the roof by means of a hydraulic lift. The cylinder which works the car can raise a load of 1200 lb., 154 gallons of water being used in raising that weight 75 ft. It is intended to extend the northern and southern wings eastward at some future date, arrangements for this purpose having been prepared in the designs for the completion of the hospital buildings.

CORK FEVER HOSPITAL.

During last year, although about thirty more cases of scarlatina, as compared with the previous year, were admitted, not a single death from this disease took place in this hospital. The mortality from typhus and enteric fevers amounted to 4 per cent., and from pneumonia 3·1—results which will compare favourably with those of any institution of a similar kind.

SIR PATRICK DUN'S HOSPITAL, DUBLIN.

The governors of this hospital are anxious to erect on the hospital grounds a detached building for the treatment of fever, small-pox, cholera, and other infectious diseases, and have commenced a subscription list for the purpose, contributions to which they solicit.

THE CONVALESCENT HOME, STILLORGAN.

This valuable institution has existed for seventeen years, but for the last few years the accommodation it provided has been found to be most inadequate. The Committee accordingly advertised for tenders for additions to the hospital, and ultimately accepted one amounting to £2300. The additional buildings are now nearly complete, while the building of the Napier wing, commenced at the same time, has made satisfactory progress, and when finished will add a new feature to the institution by extending its advantages to those who are in a position to contribute towards the expenses of their maintenance. Dr. Denham, one of the visiting physicians, having retired from practice, the vacancy has been filled by the appointment of Dr. Richard A. Hayes.

NATIONAL EYE AND EAR INFIRMARY.

During last year in the Dispensary for Diseases of the Throat, which was established two years since as an adjunct to the Ear Department, 131 new patients were treated, of whom a large proportion consisted of aural patients who were found to have throat complications. Both in the wards and the extern department the numbers obtaining advice have greatly exceeded former years, but the number of annual subscribers have not increased as could be wished.

On the 10th prox. his Royal Highness the Prince of Wales will lay the foundation stone of the New Science and Art Museum and National Library, Dublin. The buildings will cover an area of about one acre and a half, and the estimated cost will be £120,000.

Dr. Norman, late resident physician of Castlebar Lunatic Asylum, has been presented with an address and testimonial from the staff of that asylum, on his transference to the Monaghan Asylum.

Dublin, March 17th.

PARIS.

(From our Paris Correspondent.)

THE DIVULGENCE OF PROFESSIONAL SECRETS.

I ALWAYS understood that the divulgence of a professional secret constituted a criminal offence only when accompanied by evidence of malice; but the following example would seem to show such a conclusion to be erroneous. It may be recollected that after the death of the celebrated painter, Bastien-Lepage, which took place about the 12th of December last, several articles were published in the daily papers reporting the circumstance, in doing which the most uncharitable insinuations were made in some of them as to the nature of the malady from which the deceased suffered. After reading these reports, Dr. Watelet, his medical attendant, sent a letter to a morning paper to refute them, and at the same time mentioned that his patient died from a cancerous affection. This aroused the indignation of the judicial authorities, in consequence of which Dr. Watelet was sued before the Correctional Court last week. The judge admitted that the intention on the part of the defendant was praiseworthy, yet, as the act constituted a breach of the penal code, he was condemned to pay a nominal fine of 100 francs, and the editor of the paper in which Dr. Watelet's letter appeared was fined 16 francs for complicity. This case and the following prove how extremely difficult and delicate is the position of a medical man in his relations to society. About thirty years ago Dr. Delpech, a celebrated physician of Montpellier, was assassinated by one of his patients under the following circumstances. The Doctor having learned that his patient, who was suffering from a contagious malady, was engaged to be married to a young lady, the daughter of an intimate friend of his, advised him to discontinue his addresses, and threatened that if he persisted in his intentions he would expose the nature of the malady to the parents of the young lady. This, however, had no effect on the young man, and Dr. Delpech, seeing that his remonstrances were of no avail, informed the parents of the disease from which their intended son-in-law was suffering, in consequence of which the marriage was broken off. The young man, irritated, went to the Doctor's house and shot him dead. He was arrested, and tried before the Supreme Court, but acquitted.

RETIREMENT OF PROFESSOR BOUCHARDAT.

Dr. Bouchardat, Professor of Hygiene at the Paris Faculty of Medicine, has, after a service of nearly forty years, retired, and his name is transferred to the list of Honorary Professors.

Paris, March 17th.

MEDICAL NOTES IN PARLIAMENT.

The Poisons Bill.

IN the House of Lords on Thursday, the 19th inst., Lord Carlingford moved the second reading of the Poisons Bill, stating that it was an effort in the direction of providing protection for the public, which the present law did not provide. He did not think the objects aimed at by this measure could be attained by any amendment of the present law, against which many and continual complaints had been made to the Home Office. The Bill, in addition to many precautions necessary under the present Acts, added new clauses—among others the labelling of every poison sold, with name and address of the seller; that every person selling a poison must be a chemist and druggist or a medical practitioner; and that poisons could not be sold to persons under sixteen years of age. Other restrictions would be applied to the most virulent class of poisons: the buyer must be known to the seller, or introduced to him by someone with whom he is acquainted, and the seller must record every transaction on forms prescribed. With regard to patent medicines, a person selling any compound of that class, whether it bore a stamp or not, would have to take his chance as to the way in which he sold it. If he believed it innocuous within the meaning of the Act, and sold it as such, he would run the risk of penalties if in any case a medicine had been proved by judicial investigation to be a poisonous compound, and such medicine would be then included in the list of poisons. The Bill was read a second time.

St. Pancras and its Medical Officer.

In the House of Commons on the 13th inst., Mr. Russell, in reply to Mr. Firth, who asked whether Dr. Murphy's resignation as medical officer of St. Pancras was due to exceptional and discreditable means adopted to discredit him in his contest with those who were affected by his condemnation of insanitary property in St. Pancras, and whether the Local Government Board proposed to take any steps in the matter, said he understood Dr. Murphy had discharged his duties with great efficiency. The action of the local authority in this matter was in no way subject to the jurisdiction of the Local Government Board, which could not interfere.

Patent Medicines.

On the 16th inst. Mr. Puleston asked the Chancellor of the Exchequer whether his attention had been called to an article in THE LANCET on this subject. The matter is referred to in another column.

The Cheltenham Medical Officer of Health.

In reply to Mr. J. Campbell, Mr. G. E. Russell said that the Town Council of Cheltenham last month appointed to the office of medical officer of health a gentleman who at that time possessed a surgical qualification only. He had since obtained a medical qualification. The appointment was not reported to the Board within the time required by the regulations. The Board have asked for particulars as to the appointment, but seeing that the gentleman elected has now both a medical and a surgical qualification, the Board would not regard the fact that at the time of election he had one qualification only as being in itself a sufficient ground for withholding their sanction to the appointment.

The Royal Infirmary, Dublin.

On the 17th inst., in reply to Mr. Eaton, the Marquis of Hartington stated that during the first week of March two deaths occurred in the Royal Infirmary, Dublin. According to the latest returns, there were on duty in this hospital one surgeon-major in charge, four civilian surgeons, one sergeant of the Medical Staff Corps, with orderlies from Line regiments. It is quite true that under the former system the hospital orderlies would have been drawn from the regiments, and that they would have had a certain amount of hospital training, though far less than is now given to men of the Medical Staff Corps. Under that system during war the regimental hospitals at home would have their own orderlies; but in the field the trained orderlies would have had to be largely supplemented by untrained men, on whom the base hospitals would probably have entirely depended.

The Case of Mr. Charles Hillman.

In reply to Mr. W. Corbet, Mr. H. Fowler stated that the Secretary of State has called the attention of the Commissioners in Lunacy to this case, and they have reported to him that, after consideration, it appears to them that certain persons have been concerned in the unlawful taking and confinement, as an insane patient, of Mr. Charles Hillman; but they are of opinion, having before them the certificates of three medical men and the statement of the medical superintendent of the Lunatic Asylum for the county of Sussex, that Mr. Charles Hillman was in fact insane, and a proper person to be placed under care and treatment; and finding no evidence of malice or bad faith on the part of any of the persons referred to, they do not consider that a *primâ facie* case exists for the prosecution of such persons.

The Reception of Persons of Unsound Mind into Workhouses.

Earl Percy has given notice of his intention to ask whether the attention of the Local Government Board has been called by the guardians of the Westminster Union to the recent decision of Mr. Justice Wills, in the proceedings lately taken against the master of Marylebone Workhouse and other officials of that union, with regard to the reception of persons of unsound mind into workhouses, and whether the President proposes to issue any instructional letter to the masters of workhouses generally and relieving officers as to their duty in the matter; and whether it is proposed to introduce any measure for the amendment of the law relating to the reception of supposed insane persons into workhouses, and for protecting Poor-law officials from the responsibilities in which they may be involved by the strict application of Mr. Justice Wills's decision.

Obituary.

EBENEZER PYE-SMITH, F.R.C.S.

MANY old Guy's men will have been reminded of their early associations in seeing the announcement of the death, at a good old age, of Mr. Pye-Smith. Though retired from practice for more than ten years, he was closely connected with the traditions of that hospital and medical school.

The son of the Rev. John Pye-Smith, a theological writer and a Fellow of the Royal Society, whose name is still held in esteem, he inherited a love of knowledge, habits of industry, and deep religious principles. Having completed his course at Mill-hill School, at the age of eighteen he became a pupil of the Borough Hospital, and afterwards studied in Paris. Returning to England about 1830, Mr. Pye-Smith settled in the City, and soon afterwards married the lady who now survives him. He took pupils during the earlier part of his career, and between 1840 and 1850 had the discernment to send them up to the examinations of the then new University of London. Here they obtained remarkable successes, and he had the perhaps unexampled satisfaction of seeing not less than five of them, Dr. Oldham, Dr. Habershon, Dr. Pavy, his own son, Dr. Pye-Smith, and the late Dr. J. J. Phillips, in the position of physicians to the great hospital which he was proud to call his *alma mater*. After giving up practice he wisely travelled in Italy for more than a year, "to learn how to be idle," and after a short trial of Kensington, bought a house and garden at Sevenoaks, where he spent the last ten years of his prolonged life in peaceful but not inactive retirement.

Gifted with remarkably fine features, of tall and slender figure, with the courteous manners of the old school and the frank simplicity of a guileless nature, Mr. Pye-Smith was in all outward respects fitted to win confidence, while his insight and judgment, his skill in withholding, no less than his energy in enforcing, active treatment, and his unaffected sympathy with suffering confirmed him in the esteem of his patients. Those who knew him believe that his defects were giving too long time to individual cases and over-anxiety about results. The one made his work more laborious than was needful, and the other too often disturbed his peace. The large number of old patients who flocked to the funeral when Mr. Pye-Smith was laid to rest at Abney Park Cemetery, in the neighbourhood where the last twenty years of his professional life was passed, proved how lasting

was the memory of his skill and devotion. He was followed to the grave by his old friend, and the son of his father's friend, Sir Risdon Bennett; by his former pupil, Dr. Habershon; by Dr. Payne of St. Thomas's Hospital; by his fellow student, Dr. Lockhart, late of Pekin; by his five sons, two of them holding hospital appointments; Dr. Gilbert of Clapton, his successor in practice; Dr. Fotherby of Finsbury-square; Dr. Dühson, R.N., of Trinity-square; and Dr. Burchell of Stoke Newington.

His life is an example of how much happiness and respect and more than money's worth is within the reach of the medical practitioner who seeks to do well rather than to do much, whose ambition is moderate but his aims high, and whose entire course from earliest youth up to extreme old age is one of unselfish devotion to duty,

"As ever in the great Taskmaster's eye.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 12th inst.:—

Aldous, George Frederick, St. Bartholomew's Hospital.
Collinson, Thomas Arthur, King's College.
Ellison, Ernest Henry, King's College.
Hickey, Evan Lewis, King's College.
Raw, William Edmund St. Michael, London Hospital.

DR. BODKIN, of Chelmsford, has been recommended by the House Committee of the Infirmary of that town to fill the post on the staff rendered vacant by the lamented death of Mr. D. M. B. Wheeler.

DR. JOSIAH WILLIAMS, of Sheffield, intends forwarding a parcel of books and newspapers for our soldiers in the Soudan every week, and will be glad to receive contributions of suitable literature.

A SERIOUS epidemic of whooping-cough has ravaged the islands of Suva, Fiji. The malady has carried off all the very young native children, and left a decrease in the population on the year of 3000.

INTERNATIONAL INVENTIONS EXHIBITION.—H.R.H. the Prince of Wales, President of the International Inventions Exhibition, has fixed Monday, May 4th, for the opening of the Exhibition.

A CHELMSFORD paper mentions that the town seems to be attracting to itself quite an influx of fresh medical practitioners, no less than four having recently taken houses or arranged to do so.

PROFESSOR F. S. B. F. DE CHAUMONT, M.D., F.R.S., has accepted the presidentship of the Autumn Congress of the Sanitary Institute of Great Britain, to be held in Leicester from September 22nd to 26th inclusive.

MANCHESTER HOSPITAL SUNDAY AND SATURDAY FUNDS.—The amount paid into the bank to the credit of the Hospital Sunday Fund up to the present time is £4716 16*s.* 6*d.*, and to that of the Hospital Saturday Fund, £2780 19*s.* 5*d.*, the two sums making a total of £7497 15*s.* 11*d.*

FROM the report of the Committee of the Manchester and Salford Day Nurseries Association, it appears that during last year 4319 attendances were made at the two nurseries superintended by the Association. The income amounted to £212, leaving a surplus of £10 over the expenditure.

ON the 16th inst., it was decided in the Queen's Bench Division, in the case of Page *v.* Harrison, that the defendant was entitled to a new trial, which was accordingly granted. It will be remembered that the plaintiff, who is a medical man, obtained a verdict some months ago of £150 against the defendant for slander.

PROPOSED REMOVAL OF ST. LUKE'S HOSPITAL.—An application has been made to the churchwardens and overseers of the parish of St. Luke, on the part of the inhabitants, to join in a memorial to the authorities of St. Bartholomew's Hospital for the removal of St. Luke's Hospital from Old-street to Dulwich; the request, however, has not been acceded to.

MR. GEO. JOHN IAGO has been appointed Secretary and Librarian to the Westminster Hospital Medical School.

THE SEWAGE OF COVENTRY.—The Town Council have recently decided, in order to meet the increase in population, to considerably enlarge the sewerage works of Coventry. The sewage has for the past ten years been dealt with by a combined system of chemical precipitation and filtration through land, and the operations have given general satisfaction.

ROYAL ASYLUM OF ST. ANNE'S SOCIETY.—The Council of the Royal Medical Benevolent College are about to nominate the orphan daughter of a medical man to one of the perpetual presentations to the Royal Asylum of St. Anne's Society which have been placed in their hands. Immediate application should be made to the Secretary at the office in Soho-square.

DR. HENRY TOMKINS, on the occasion of his leaving the Monsall Fever Hospital, in connexion with the Royal Infirmary, Manchester, to which institution he has acted as resident medical officer for the last six years, was entertained at dinner on the evening of the 6th inst., at the Albion Hotel, Piccadilly, by a few of his friends and old fellow-students. V. A. Wartenberg, Esq., of Blackpool, was in the chair.

THE POPLAR HOSPITAL FOR ACCIDENTS.—The annual meeting of the subscribers to this institution was held on the 18th inst. The number of in-patients admitted during the past year was 612, and the out-patients treated were 7289. The total receipts amounted to £3624, and the expenses to £3054. It was decided that the committee should contribute £150 towards the expenses of a Convalescent Home at Southend.

AT the West Ham Police-court on Wednesday, March 18th, the medical officer of health for the Port of London applied for an order from the presiding magistrate for the destruction of forty-five tons of beef and a number of pigs, partridges, turkeys, &c., on the steamship *Newcastle City*, lying in the Victoria Docks. The vessel soon after leaving port met with very heavy weather, which necessitated putting back, and in consequence of this lengthening of the voyage the meat had decomposed.

MEDICAL OFFICERS OF HEALTH ASSOCIATION.—The annual meeting of members of the North-Western Association of Medical Officers of Health was held in Manchester on the 12th inst. It was stated that during the past year three new names had been added to the list of members. There are now thirty-three ordinary members, twenty-six associates, and four honorary members. In view of these figures, the committee strongly urged upon those connected with the Association the duty of making its objects more widely known. Dr. T. W. Hime was elected president for the ensuing year.

THE HAMPSTEAD SMALL-POX HOSPITAL.—At a meeting of the Hampstead Small-pox Hospital Removal Committee on the 14th inst., a letter from the Local Government Board was submitted in reply to a request that Sir C. Dilke would receive the deputation appointed at the great meetings recently held under the chairmanship of the Lord Lieutenant of Middlesex. The Board state that they will, on receiving a copy of the committee's memorial, consider whether they will grant an interview to the deputation, and it was resolved that the memorial should at once be prepared and forwarded.

MR. WALTER WHITE.—The retirement of Mr. Walter White from the assistant-secretaryship of the Royal Society, after forty years of faithful service, is an event that will be regretted by many members of the profession who hold the blue riband of the Society, as well as by the Fellows at large. The post of assistant-secretary is one of great responsibility, demanding incessant attention to details, and delicate management. In Mr. White the ability required for the task has been pre-eminent. Though it is not generally known, Mr. White is a poet as well as a scholar. In his exquisite ballad "The Prisoner and his Dream," he has translated the immortal "Progress" into verse; and in a volume of beautiful poems has depicted some fine scenes from the haunts of continental travel in which he has passed his hours of holiday. We trust, therefore, that what the Royal Society loses the world may gain in more ambitious literary ventures.

PROPOSED PARK AT DULWICH.—At a public meeting held in the Lambeth Vestry Hall on the 12th inst. the following resolution was carried:—"That this public meeting of the inhabitants of the parish of Lambeth supports the action of the estates governors of Dulwich College with respect to the proposed grant of seventy-two acres of land for the benefit of the inhabitants of South London, and that a copy of this resolution be sent to the governors."

IRISH GRADUATES' ASSOCIATION.—The dinner in connexion with this Association was held on the 17th inst., at the Holborn Restaurant, when sixty-six members and guests were present, amongst whom were Professor Stokes, M.D., F.R.C.S.I., Dr. H. Macnaughton Jones, Sir William MacCormac, Dr. Richard Quain, Mr. Savory, Dr. Playfair, Mr. Timothy Holmes, Mr. Jonathan Hutchinson, Dr. Crawford, Director-General A.M.D., and Dr. Frederick Roberts. During the evening nearly a score of new members joined the ranks of the Association.

LEEDS GENERAL INFIRMARY.—At the annual general board of governors of this institution, held on the 4th inst., it was stated that the number of patients admitted during 1884 was the highest in any one year since the opening of the infirmary—viz., 23,075. The number of in-patients admitted was 3807, against 3551 the preceding year, showing an increase of 256; and the number remaining in the infirmary on December 31st, 1883, was 233, making a total of 4040 treated during the year. The daily number of beds occupied was 230, and the average duration of treatment of each patient was twenty-one days. The rate of mortality was 5·43 per cent. The receipts for 1884 amounted to £16,102, as against £15,326 for 1803; and the expenditure to £14,316, as against £14,634.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The sixth meeting of the twenty-ninth session, 1884-85, was held at the Royal Kent Dispensary, Greenwich-road, on Friday evening, March 6th, 1885, at 8 o'clock precisely, when the following gentlemen were balloted for:—Charters James Symonds, F.R.C.S., John Poland, F.R.C.S., Edmund Samuel Dashwood, M.R.C.S., L.S.A. Mr. Charters James Symonds read a paper "On the Employment of Simple Pressure in the Treatment of Acute and Chronic Diseases of the Joints;" T. Moore, F.R.C.S., Surgeon to the Miller Memorial Hospital, exhibited a case of an unusual form of Imperforate Anus; Dr. Ernest Clarke exhibited some specimens of Tumour of the Testis and Diseased Placenta, with microscopic sections of the same.

THE STATE OF THE THAMES.—At a conference of representatives of vestries and district boards of works, called by the vestry of St. George, Hanover-square, to consider the state of the Thames, the following resolutions were carried unanimously:—"That this meeting is of opinion that the evils of the present system of discharging the metropolitan sewage are such as to require a remedy, and that it is in the public interest that a remedy should be applied with the least possible delay;" and also, "That this meeting, having heard with great pleasure that experiments are now being made by the Metropolitan Board of Works at Crossness, do adjourn the further consideration of the question until the St. George's, Hanover-square, representatives think it desirable to call a further meeting of the delegates."

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BARRITT, GILBERT LACY, L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Crumpsall Workhouse, Manchester Township, vice Winder, resigned.

BROWN, JOHN HENRY, M.B., C.M.Ed., M.R.C.S., has been appointed Assistant Medical Officer to the Crumpsall Workhouse, Manchester Township, vice Richmond, resigned.

BROWNE, EDWARD GEORGE, L.R.C.S.I., has been appointed House-Surgeon to the City of Dublin Hospital.

BYLES, HENRY, M.B., C.M.Ed., has been appointed Medical Officer of Health for the Sanitary District of Ecclesihill, near Bradford, Yorks, vice Aston, resigned.

CALLAGHAN, JAMES LESLIE, L.R.C.S.I. & L.R.C.P.Ed., has been appointed Medical Officer of the Basingwold Union District.

CROPLEY, HENRY, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Buckland District of the Tavistock Union, vice Butters, resigned.

FOXWELL, ARTHUR, B.A., M.B.Cantab., M.R.C.P.Lond., has been appointed Assistant-Physician to the Birmingham General Hospital.

GARNHAM, G. J. WATERS, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Chippenham District of the Chippenham Union, vice Francis Spencer, F.R.C.S., L.S.A.Lond., resigned.

HILL, P. E., M.R.C.S., L.S.A.Lond., has been appointed Civil Surgeon to Her Majesty's Ordnance Survey for the Crickhowell District.

JOHNSON, HERBERT, L.R.C.P., L.R.C.S., has been appointed Medical Officer of Health for the Borough of Whitby (Whitby Urban Sanitary District); also Medical Officer of Health for the Whitby Rural Sanitary District.

LEE, HERBERT GROVE, M.D. St. And., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer for the Haddenham District of the Aylesbury Union.

MORTON, SHADFORTH, M.D., M.R.C.S., has been appointed Surgeon to the Croydon General Hospital.

RICE, EDWARD, M.B.Lond., M.R.C.S., has been appointed House-Physician to the Radcliffe Infirmary, Oxford, vice Harris, resigned.

ROWLANDS, WILLIAM, L.K.Q.C.P.I., M.R.C.S., has been appointed Medical Officer for the North Sefton District of the West Derby Union, vice May, deceased.

RUGG, GEO. LEWIS, M.R.C.S., L.S.A.Lond., has been appointed Assistant Medical Officer and Dispenser to the Lambeth Infirmary and Workhouse, vice Roberts, resigned.

STEPHENSON, SYDNEY H. A., M.B.Ed., has been appointed Resident Medical Officer to the Rochdale Infirmary, vice W. Piercy Fox, resigned.

TAYLOR, EDWARD MUSCROFT, L.R.C.S., L.R.C.P., has been appointed Medical Officer to the Workhouse, Whitby; Medical Officer to the East Side District, Whitby; and Public Vaccinator for Whitby and District.

Births, Marriages, and Deaths.

BIRTHS.

BIGGS.—On the 9th inst., at Hillside, Child's-hill, N.W., the wife of John M. Biggs, Surgeon, of a son.

KING.—On the 15th inst., at Sutton-court-road, Chiswick, the wife of William Moore King, M.R.C.S., of a daughter.

MANSON.—On the 30th Jan., at Hongkong, China, the wife of Dr. Patrick Manson, of a daughter.

O'CONNELL.—On the 16th inst., at North Villa, Havelock-park, Southsea, the wife of Surgeon-Major R. O'Connell, Army Medical Department, of a daughter.

MARRIAGES.

CLAREMONT—HELMORE.—On the 9th inst., at Holy Cross Church, Crediton, Constantine Cecil Claremont, M.R.C.S., second son of Claude Clarke Claremont, M.R.C.S., L.S.A.Lond., of Millbrook House, N.W., to Jessica, second daughter of Frederick Helmore, Esq., of Taw Vale, Crediton, Devon.

GLYNN—GRIFFIN.—On the 12th inst., at Christ Church, Linnet-lane, Liverpool, T. R. Glynn, M.D., of Liverpool, to Alice Lewtas, daughter of the late Henry Griffin, of Grove-park, Liverpool.

JONES—SMITH.—On the 12th inst., at St. Andrew's, Haverstock-hill John Evans Jones, M.D., to Jessie Kate, eldest daughter of William Smith, Esq., Head Master Orphan Working School, Maitland-park, N.W.

DEATHS.

BARKER.—On the 31st Jan., at Alma-road, E., St. Kilda, Madeline Charlotte Skene, wife of Edward Barker, M.D., 53, Latrobe-street, Melbourne, and eldest daughter of the late Alexander Scott, Esq., Trinity, N.B.

CHRISTIE.—On the 13th inst., at South-street, St. Andrews, Scotland, Alexander Christie, Surgeon Bengal Medical Service, Retired List.

COLVILL.—on the 13th inst., at Lawton, Forfarshire, N.B., William Henry Colvill, Brigade Surgeon Her Majesty's Indian Army, Bombay (retired). Friends will please accept this the only intimation.

MAKENS.—On the 14th inst., at the residence of his brother, Colney, Norwich, John Makens, M.B.Lond., late of Middleton, Teesdale, third son of Robert Makins, of Ringshall, Suffolk, aged 44.

MASON.—On the 18th inst., Dr. Mason, F.R.G.S., of 182, Lewisham High-road, and 44, Finsbury-circus.

MILLER.—On the 17th inst., at Rye, Suffolk, Emily, the wife of W. W. Miller, M.D., aged 54.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 19th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 13	30·49	E.	43	40	...	49	36	...	Overcast
,, 14	30·58	E.	41	40	...	50	40	...	Overcast
,, 15	30·61	E.	35	33	...	49	32	...	Foggy
,, 16	30·57	N.W.	39	36	...	53	32	...	Foggy
,, 17	30·17	N.W.	41	38	...	56	37	...	Bright
,, 18	29·60	W.	43	41	...	49	40	·03	Cloudy
,, 19	30·07	N.	37	34	...	55	34	...	Bright

Medical Diary for the ensuing Week.

Monday, March 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. C. E. Beevor: A Case of Chronic Spasms of the Upper Limbs.—Dr. Burney Yeo: On some Points in the Etiology of Phthisis.

Tuesday, March 24.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Sir Andrew Clark: Lumleian Lecture on some Points in the Natural History of Dry Pleurisies.
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. A. J. Duffield: The Inhabitants of New Ireland and its Archipelago.—Mr. R. Brudenell Carter and Mr. C. Roberts: On Methods of Testing the Sight of Civilised and Savage Peoples.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Discussion on Cholera, introduced by a paper from the President (Dr. George Johnson). Microscopical Specimens will be on view at 8 P.M.

Wednesday, March 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.
HUNTERIAN SOCIETY.—8 P.M. Mr. Jonathan Hutchinson: Notes on Symptoms.—Dr. Stephen Mackenzie will exhibit the Bacillus of Leprosy.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens by Dr. R. Barnes, Dr. Edis, Mr. Reeves, and others.—Dr. Bell (Glasgow): Dysmenorrhœa.—Dr. Lamprey: Plural Monstrosities.

Thursday, March 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Sir Andrew Clark: Lumleian Lecture on some Points in the Natural History of Dry Pleurisies.

Friday, March 27.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Mayo Robson (Leeds): A series of cases of Spina Bifida treated by Plastic Operation (two patients will be exhibited).—Mr. Barwell: Three cases of Pistol-shot Wounds.—Dr. Hadden: A case of Choreiform Movements supervening in Infancy, and probably of Congenital Origin.—Mr. J. R. Lunn: Calculus and Tumour of the Bladder; lithotomy; death on the ninth day.
ROYAL INSTITUTION.—9 P.M. Prof. Victor Horsley: The Motor Centres of the Brain and the Mechanism of the Will.

Saturday, March 28.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. C. Armbruster: Richard Wagner.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

GAS FURNACE FOR DENTAL PURPOSES.

IN reference to a criticism by Mr. T. Fletcher of a paper by Dr. Rollins on Enamel Fillings, which recently appeared in the *Boston Medical and Surgical Journal*, it is but fair to the latter gentleman to state that early in 1880 we received from him a paper which not only contained a full description of a gas furnace for taking dental porcelains and artificial teeth, but was also accompanied by a woodcut of the furnace, taken from a photograph.

Quæsitor.—It is quite in the power of the guardians to continue the services of their medical officer, though living out of the district, in preference to the singly qualified practitioner living within the district; but in cases where great inconvenience is experienced by the poor from non-residence of their medical officer, representations having been made to that effect, the Local Government Board have acceded to the wishes of the guardians in sanctioning the appointment of a singly qualified medical man.

Dr. Kinkead (Galway).—The paper will be published in an early number.

HYDROCHLORATE OF COCAINE.

To the Editor of THE LANCET.

SIR,—I am at a loss to understand Mr. Churchyard's statement that when cocaine solution becomes old and flocculent he filters it through animal charcoal, adds salicylic acid, and it is as effectual as when freshly prepared. In a paper read at the Royal Institution here last week, I directed special attention to the fact that a solution of cocaine hydrochlorate of any given strength was most active when neutral or slightly basic; that the same solution if rendered decidedly acid is less effectual; in fact, that an acid hydrochlorate of cocaine, although more soluble, is less active than a neutral salt. There is no reason why solutions of cocaine hydrochlorate used frequently in large institutions should not be freshly prepared every two or three days; it is the work of a few minutes. If, however, it is desired to preserve it for any length of time, the suggestion of Dr. Fenwick in your issue of Jan. 31st—viz., to make the solution with camphor water—is an effectual preventive, more simple and far better than the remedy suggested by Mr. Churchyard.

I am, Sir, yours faithfully,

Liverpool, March 16th, 1885. CHARLES SYMES.

Dr. F. De Havilland Hall will find the correction made in another column.

THE LARYNGOSCOPIC MIRROR.

To the Editor of THE LANCET.

SIR,—With regard to the letters in your last issue respecting the use of glycerine and saliva to prevent the breath condensing on the laryngoscopic mirror, I would venture to point out that two objects are attained by heating the mirror in the usual way. First, it prevents the breath becoming condensed on the mirror; secondly, and not less important, it obviates the difficulties arising from the introduction of a cold body into the pharynx—i.e., spasm. This latter object is not attained by either glycerine or saliva.

I am, Sir, yours faithfully,

Old Burlington-street, W., March 16th, 1885. GEORGE STOKER.

Pharmaceutist had better write to the Secretary of the College, to have the statement authenticated.

CARBOLIC OIL A REMEDY AGAINST MOSQUITOES.

To the Editor of THE LANCET.

SIR,—The practice of anointing is very nearly obsolete, probably owing to its being unsuitable to this climate; but it occurs to me that anointing with carbolic oil might prove to be an effectual remedy against the torment of mosquitoes to our troops in Egypt.

I am, Sir, yours obediently,

Ilstree, March 2nd, 1885. D. DE BERDT HOVELL.

NEW TEST FOR TEA.

IT has been asserted that the quality of tea may be approximately estimated by the weight of ash which it yields, the value of tea being inversely proportional to the ash. M. Nikatinski has lately, says *The Grocer*, made a series of experiments with the view of testing the truth of this assertion, and finds that the ash is a very fair index of the quality of the tea. Thus a good Shanghai tea gave 5·16 per cent. ash, a cheap green brick tea 6·87, and two Orenburg teas, which are known to be adulterated with rose leaves, and of which the price was 115*s.* and 48*s.* per cwt., yielded respectively 7·87 and 10·42 per cent. of ash.

Dr. Kennedy is referred to the paragraph at the commencement of our analytical notices (see THE LANCET, Jan. 17th, p. 114) for information as to the terms on which we undertake such investigations.

Beaver.—Yes, to both questions.

"HOW TO CARRY, UNAIDED, AN INSENSIBLE MAN."

To the Editor of THE LANCET.

SIR,—In answer to the letter of "R. N. R." on the above subject in your issue of the 14th inst., I should recommend him to acquaint the officers in the Soudan, &c., with the following method adopted by and taught to the firemen of the London Fire Brigade.

A small platform, some forty or fifty feet high, has been erected on the roof of one of the buildings in the drill-yard. One half of the men who are drilling go up to this platform, and prostrate themselves in all kinds of peculiar attitudes, some on their backs, some on their faces, some on their sides, and some curled up. The other half have to go up and fetch them down single-handed. The rescuing fireman first straightens out the seemingly lifeless body of his comrade, and rolls it over on to the face. Then, taking hold under each armpit, he raises the body on to his right knee, so that he can put his arm round the waist, and the arm of the insensible man round his own neck. Taking a firm hold, he suddenly straightens himself up, and walks away with his burden in an upright position, and the whole weight of the other's body, supported and hooked, as it were, by the arm. He has then to carry his comrade through the window as best he can, and shoot him down the escape. I am, Sir, yours faithfully,

Leeds, March 16th, 1885. FRANK SALTER, L.R.C.P., &c.

To the Editor of THE LANCET.

SIR,—Let "R. N. R." try the following methods: 1. Pig-a-back. 2. Weigh butter. 3. Fireman's lift. Methods 1 and 2 are both well known as children's games. For 1, spread the patient's legs, and sit him up; then kneel, or, better, crouch down between the legs with your back to him, draw his arms as forward as possible over each of your shoulders, and by stooping forwards lift him gradually up until you stand upright; a hoist or two while holding firmly to the arms will mend the position. In 2 the bearer should get the patient into a sitting posture, then kneeling or crouching himself, back to back, hook his arms into the patient's arms, and gradually raise himself and his load until he stands up. The best, however, is the third method, which is described in Captain Eyre Shaw's book on Fire Protection, p. 271. The patient by this method is so well sustained that a certain amount of freedom is permitted to the hands of the bearer, which could be utilised in carrying any portable article, for climbing a rock, descending a ladder, &c. I am, Sir, yours truly,

March 16th, 1885. G. C. S.

To the Editor of THE LANCET.

SIR,—In reply to the query of your correspondent, "R. N. R.," I beg to suggest as follows. First, if possible, drag the insensible man close to a tree, large stone, or any object which may assist you in raising him from the ground; then strap or tie the legs loosely together below the knees; next turn the patient on his right side, and lie down on your left side, with your back to the patient's stomach, and insert your head between his thighs or knees above the strap; turn as much as possible upon your stomach, bringing the body with you, and you will not find it difficult to rise, and by a few jerks the body can be brought into a position convenient for carrying. The advantages of carrying a body in this position are obvious—viz., the compression of the abdomen, the position of the head, and the legs balancing the body (with perhaps a rifle laid at the back of the knees), with respect to the patient, and to the bearer the freedom of the chest from compression, and of the right arm for self-defence, &c. I am, Sir, yours truly,

Romsey, March 17th, 1885. SPENCER H. SIMPSON.

X. X.—With ordinary prudence, we believe the pay to be quite sufficient to defray all necessary expenses. We have known many gentlemen who have found it to be so.

Practitioner.—The Vaccine Department, Local Government Board, Whitehall, S.W.

THE LUNACY AMENDMENT BILL.

To the Editor of THE LANCET.

SIR,—I hope the profession at large will, through their Parliamentary representatives, secure the right of every registered practitioner to sign lunacy certificates. The monopoly which the Bill proposes to create should be prevented. I am, Sir, yours truly,

Cashel, March 12th, 1885. T. LAFFAN.

DR. BOUGIER'S THESIS.

OUR Paris Correspondent writes:—"In re-reading Dr. Bougier's thesis, referred to in my letter of last week, I find that the word 'moss' is evidently incorrect; it should be *froth*. The latter part of Conclusion 1 should therefore read thus: 'The appearance of froth at the mouth would be of some diagnostic value.' In Conclusion 6: 'The characteristic froth is found only in the submerged.' In using the terms 'submersion' and 'immersion' I simply followed the author, who evidently meant to express the former as taking place during life, and the latter after death. For instance, in Conclusion 3 the author states that the epiglottis is vertical in the submerged; it is only half open in the corpses immerged. Again, in Conclusion 4 he makes the same application of the words, which, after all, may simply be a distinction without a difference."

R. B. M.—1. It is exceedingly improbable that the quantity of the mercurial preparation reported to have been taken would cause "all the symptoms of severe poisoning," unless some soluble salt of mercury was present as an impurity.—2. The dose was certainly somewhat large, considering its frequent repetition. We have often written against the practice of submitting to treatment by medicines without medical advice. If people will persist in ignoring this warning, they must abide by the consequences. A chemist is not under the same legal obligations as a qualified medical man; but, of course, he is liable to a penalty if he administers a poison.

Mr. Foley.—The description of the apparatus will be inserted on receipt of the block.

CASE OF MONSTROSITY.

To the Editor of THE LANCET.

SIR,—The following case possesses features which appear to me worthy of record.

A. T——, aged forty-two, married nineteen years, had ten children, the eldest eighteen years old. Menstruation ceased last March, and she expected her confinement about the middle of November, at which time she consulted a doctor, who told her that if she went much longer she would probably have twins, she replying that she did not care so long as they were not "Siamese." On Jan. 22nd she went to the lying-in hospital, and stated that she thought there was something wrong with her, and that hæmorrhage had previously occurred. On the 23rd I found the patient had been in labour since 10 P.M. the previous night. On examination the head was found pressing on the perineum, and all pains had ceased. This being the case, I immediately applied the forceps, and delivered the head without difficulty; but it was not until after prolonged traction that the shoulders partially emerged, when I discovered that there was an outgrowth from the chest which prevented any further movement in that direction. I therefore passed my hand round the lower part of the abdomen, and delivered the breech and legs. The child was now entirely born; but finding it connected from the neck to the umbilicus with another child still in the uterus, I laid hold of the legs of the second one, and delivered it without difficulty. The placenta followed in a few minutes. There was only one cord proceeding from an umbilicus common to both. The children were dead, and were both boys. In the ordinary position they faced one another; but the connecting link was sufficiently lax to allow them to lie partially side by side. In every other respect they were perfectly formed, and weighed 11 lb. The next day, when the mother heard of their condition, she told the nurse that in March last she went to see the "Two-headed Nightingale," and fainted at the sight. I regret to say that the occurrence so affected her that three days after she committed suicide by jumping out of a window.—I am, Sir, yours obediently,

Birkenhead, March 9th, 1885. B. R. JOHNSTON, M.R.C.S., &c.

THE GENERAL HOSPITAL, BIRMINGHAM.

To avoid possible inconvenience, we may call attention to a printer's error in an advertisement inserted in our last issue announcing the appointment in April next of a Resident Medical Officer to the above hospital. The error consisted in stating the salary to be £130, instead of £130, with board, &c.

A Country Doctor (Perthshire) should in the first place remonstrate—best by personal interview—with the medical practitioners of whose conduct he complains.

Aphids.—We do not prescribe.

Mr. Fletcher (Ormskirk).—The reply referred to was addressed to another correspondent.

"CONSTANT TINCTURES."

To the Editor of THE LANCET.

SIR,—In reply to "R. W.," we beg to state that the constant tinctures" are made, not only from "good sound drugs," but from "picked" good sound drugs, and yet it is necessary to standardise them. His statement that he has rarely found any appreciable difference in the specific gravity of his more active tinctures is no answer to the fact, generally accepted by those who have worked on the subject, that tinctures prepared as he describes will vary in alkaloidal strength. There is no direct relation between the specific gravity of a tincture and its alkaloidal value. We remain, Sir, yours faithfully,

Oxford-street, March 18th, 1885. SQUIRE AND SONS.

DR. WRIGHT'S SANITARY NIGHT-LIGHTS.

MESSRS. J. C. & J. FIELD, of Lambeth, have forwarded us a sample of these useful adjuncts to the sick-room. These night-lights diffuse eucalyptol throughout the apartment, and their use is one of the most simple and effective methods of rendering rooms in which they are burnt wholesome and fresh. To some, however, the powerful smell of eucalyptol which pervades the apartment in which one of these night-lights has been burnt may be objectionable; but to persons to whom this odour is not an annoyance we can recommend them.

Mr. F. Dillon Woon.—The intention of the writer was to say that probably something like 90 per cent. of persons exposed to small-pox would take the disease. There are undoubtedly different degrees of vaccinating ability, as of every other kind of ability. One thing is clear, that there never was so much attention paid to the attainment of good vaccination as now.

L. M.—We will endeavour to find space for the notes in an early number.

"ON SYNCOPE, AND A METHOD OF AVERTING IT."

To the Editor of THE LANCET.

SIR,—In justice to myself, will you permit me to point out, with reference to Dr. Notley's article in your last issue on the above subject, that I have for some considerable time past adopted the hot water application to the head, which I have hitherto looked upon as a novel method introduced by myself in resuscitating patients when in a state of collapse other than that due to the administration of anæsthetics. I have pursued this method in a variety of instances, and have on several occasions alluded to the fact. For instance, in THE LANCET of Dec. 13th, 1884, under the heading of Anæsthetics, I make use of the following sentence, after describing the mode of application of almost scalding water to the forehead by means of a flannel:—"I have invariably found the 'hot water' application to be invaluable in various cases of syncope, and above all for the most speedy restoration or establishment of the circulation of new-born infants."

I am, Sir, yours truly,

Baron's Court, S.W., March 14th, 1885. R. FITZROY BENHAM.

THE report of the last meeting of the Ophthalmological Society, and several articles and communications, are unavoidably held over till next week.

ERRATA.—In Dr. Lucas's letter on Cascara Sagrada, published in our last issue, the word "pathological" was misprinted for *physiological* in the second line.—In our annotation columns last week, regarding the appointment of Dr. Simpson to the Surgeon-Generalship, the word "Bombay" was misprinted for *Bengal*, that gentleman being appointed to be Surgeon-General of the Presidency of Bengal, and not that of Bombay.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Braxton Hicks, London; Professor Humphry, Cambridge; Dr. De Havilland Hall, London; Dr. Hermann Weber, London; Dr. Wickham Legg, London; Mr. W. J. C. Miller, London; Dr. Pye-Smith, London; Dr. Leech, Manchester; Mr. S. J. Sulemani, Bombay; Mr. J. J. Joseph, London; Dr. Barnes, London; Dr. Ogier Ward; Mr. Eades, London; Mr. H. R. Armstrong, Newcastle-on-Tyne; Mr. R. W. Fitch, Birmingham; Dr. Laffan, Cashel; Dr. Dingley, Wolverhampton; Mr. R. B. Mole; Mr. Linnington Ash, Holsworthy; Mr. Shuter, London; Mr. R. F. Benham, London; Mr. W. Lawless, Martinique; Mr. G. A. Farrer, Brighouse; Mr. Woon, London; Dr. Prior, Bedford; Dr. F. R. Walters, London; Dr. Suckling, Birmingham; Mr. W. C. Morris, Chester-le-Street; Mr. F. East, London; Mr. Clutton, London; Mr. John Grant, Kettering; Mr. G. Stoker, London; Mr. F. Salter, Leeds; Mr. Lawson Tait, Birmingham; Mr. Woodhouse Braine, London; Mr. C. J. Bond, Leicester; Mr. A. G. Auld, Wick; Mr. C. Symes, Liverpool; Mr. H. W. Freeman, Bath; Mr. Howlett, Hull; Mr. Wiseman, London; Dr. Coleman, Surbiton; Mrs. Ponder, Eastbourne; Dr. Vernon, Southport; Mr. Kairn, Glasgow; Mr. Fenton, Bakewell; Messrs. Allen and Hanburys, London; Messrs. Burgoyne and Co., London; Mrs. Theobald, Leicester; Rev. Homfray, Bedford; Dr. Adam, West Malling; Mr. Hoare, Burnley; Mr. Russell, Liverpool; Dr. Douglas Powell, London; Lieut.-Col. Graham, Bristol; Messrs. Gillon and Co., Leith; Mr. Gant; Messrs. Livingstone, Edinburgh; Dr. Roberts, Festiniog; Surgeon-Major Myers, Suez; Mr. Turner; Messrs. Lyngh and Co., London; Mr. Graham, St. John's Wood; Mr. Elkerton, London; Messrs. Bullock and Co., London; Dr. Kern, Halesowen; Messrs. Vigo and Co.; Dr. Heelas, Bonchurch; Mr. Maythorn, Biggleswade; Mr. Twyford, Hanley; Messrs. Heal and Son, London; Messrs. Reynolds and Branson, Leeds; Mr. Grant, Birmingham; Mr. Bickerton, Liverpool; Mr. R. Freeman, London; Mr. Geo. Lewis, London; Dr. Allchin, London; Dr. Cullimore, London; Mr. Wherry, Cambridge; Dr. W. Curran, London; Mr. Snell, Sheffield; Dr. Walker, Hanley; Dr. Whitford, Liverpool; Mr. C. F. Naismith; Mr. Babington, Manchester; Mr. J. Startin, London; Mr. Spencer H. Simpson, Romsey; Mr. Garret Horder, Cardiff; Dr. Kennedy, Peterborough; Mr. P. W. Squire, London; Mr. Cantile, London; Mr. A. Squire, London; Mr. Page, London; Mr. H. Kimpton, London; Mr. Higgs; Mr. Wickford, London; Mr. Cuxford, London; Messrs. Riddle and Co., London; Messrs. Steward and Co., London; Mr. Baker, Liverpool; Mrs. James, St. John's Wood; L. M.; Physician, Upper Edmonton; Lambeth; Beaver; A Country Doctor; Competitor; Pharmaceutist; An Old Practical Pharmacist; Quæritor; G. C. S.; Vio; Dr.; Medicus, Manchester; General Practitioner; L.S.A.; Practitioner; M.D.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Wilsden; Mr. Bevan, Mumbles; Mr. Smith, Brighton; Mr. Burgess, Bristol; Miss London, Belfast; Mr. Sutherland; Mr. Flinders; Dr. March, Bradford; Dr. Eberle, Thirsk; Mr. Fulton, Canada; Miss Cooper, St. Mary Cray; Messrs. Keith and Co., Edinburgh; Mr. Jones, Sheffield; Mrs. Lay, Northampton; Mr. Piesse, London; Mr. Gordon, Southport; Mr. Newton, Liverpool; Mr. Fitzgerald, Queenstown; Mr. Mitchell, Holbeach; Mr. Thomas, Llanengen; Mr. Hodgkinson, London; Mr. Lodge, Barnsley; Mr. Dowse, Huddersfield; Mr. Crasweller, Clapton; Mr. Jones, Rochester; Mr. Saunders, Camden-town; Mr. Woolsey, London; Dr. Thomson, Luton; Messrs. Slinger and Son, York; Messrs. Woolley and Co., Stoke-on-Trent; Mr. Gross, Bury St. Edmunds; Mr. Jeffrey, Epsom; Dr. Braye, London; Mr. Holmbrook, London; Mr. Wetwan, Southwold; Dr. Davies, Cymmer; Messrs. Lee and Nightingale, London; Medicus, Cheltenham; R.; Matron, Barrow-in-Furness; W. W. H., Burnley; Nuntius; M.B., Attwell; Assistant, Rotherham; Branson; E. H.; Omega; Lady Superintendent, New Wimbledon; Omega, Monaghan; E. P., Eastbourne; Lady Superintendent, Bath; H., Guy's Hospital; T. W. L. B., Great Yarmouth; F.S.A., Wye; A. B. C.; M.D., New Brompton; Surgeon, Long Heaton; Socius; Medicus, Belper; A. M.; L.R.C.S.I., Derby; A. M. B., Sheffield; Alpha, London.

Manchester Examiner, Sheffield Evening Star, Baltimore Sun, Reading Mercury, North-Western Gazette, Norwich Argus, Middlesex County Times, Richmond and Twickenham Times, Pontypridd Chronicle, Calcutta Englishman, Lincoln Mercury, Nottingham Journal, Babyhood, Sunday Closing Reporter, Hairdressers' Weekly Journal, &c., received.

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year	£1 12 6	Six Months	£0 16 3
To CHINA AND INDIA		One Year	1 16 10
To THE CONTINENT, COLONIES, AND UNITED STATES		Ditto	1 14 8

Post Office Orders should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable at the Post Office, Charing-cross.

Notices of Births, Marriages, and Deaths are charged five shillings.

Cheques to be crossed "London and Westminster Bank."

ADVERTISING.

Books and Publications	£0 5 0
Official and General Announcements	0 5 0
Trade and Miscellaneous Advertisements	0 4 6
Seven lines and under (each averaging ten words).	
Every additional Line	0 0 6
Front Page per Line	0 1 0
Quarter Page	1 10 0
Half a Page	2 15 0
An entire Page	5 5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.